

ARCHITECTURE

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Photograph by Wallace


Reproduction of part of façade of the old Château D'Issy (re-erected by Rodin near his studio at Meudon) serving as a gateway to the Rodin Museum in Philadelphia

The Rodin Museum, Philadelphia

PAUL CRET AND JACQUES GREBER, ARCHITECTS

By John Junius

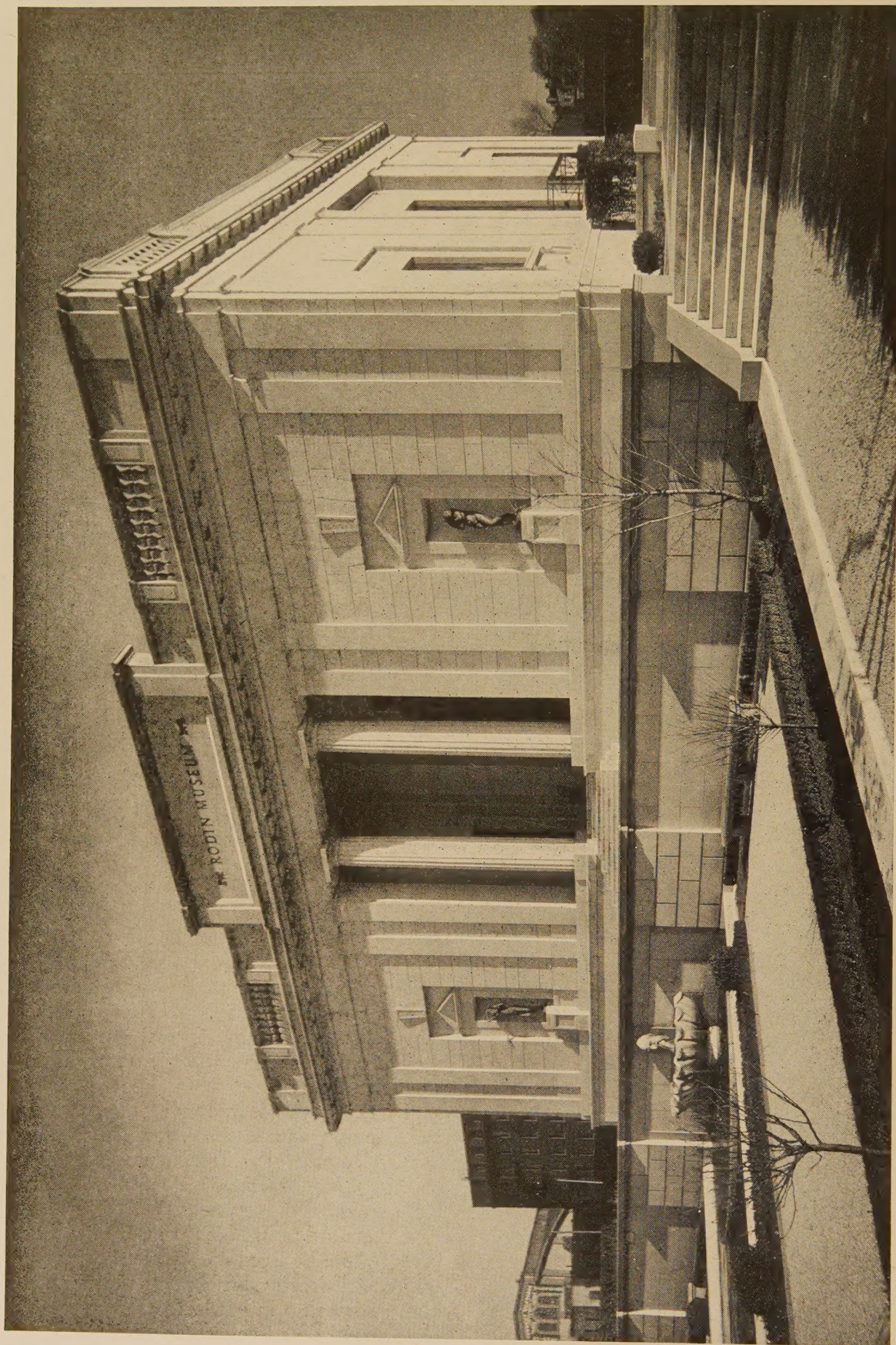
Un art qui à la vie ne restaure pas les œuvres du passé : ils les continue.—AUGUSTE RODIN, ON A MURAL DECORATION IN MUSÉE RODIN, PARIS.

 ODIN has been singularly happy in the sites chosen for collections of his work. In Paris the Hôtel Biron, a charming example of the work of Jacques Gabriel, built in 1728 for a self-made child of fortune, Peyrenc de Moras, later the home of Marshal Biron, hero of Fontenoy, then a convent of the Dames du Sacré Cœur de Jésus, was in 1904 sold to real-estate promoters and its grounds about to be divided into building lots when Aristide Briand obtained an option on it for the French government and installed

there various artists, among others Rodin, whose studios on the ground floor overlooked the terraces of the charming formal garden, which, though only a shell of what it once was, is still a delightful place.

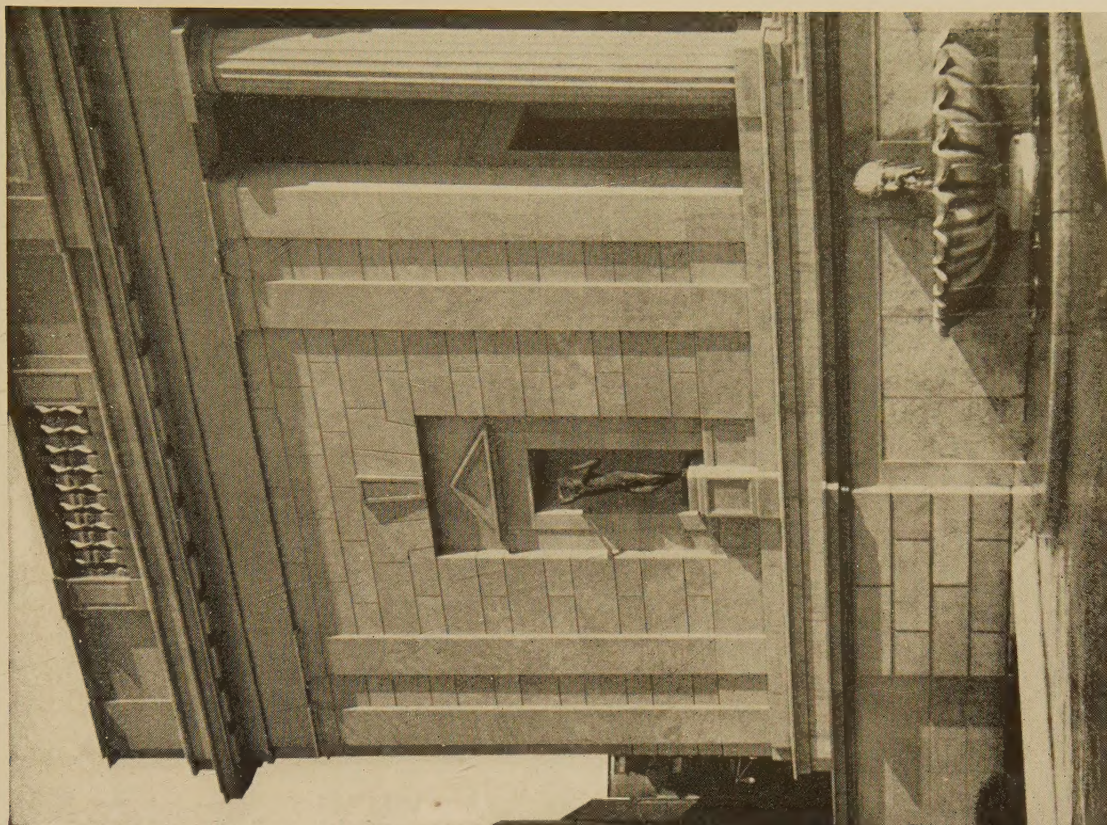
In the exquisite rooms of this relic of the past are now housed the collection of his works left by Rodin to the French people, with some paintings by his friends Renoir and Carrière. Here are most of his works.

Others are at Meudon, at the Villa des Brillants, where he lived and worked, where he re-erected architectural fragments that appealed to him, and set up in garden settings the antique sculptures he had collected—and where he lies buried. It was Rodin who, when reminded that

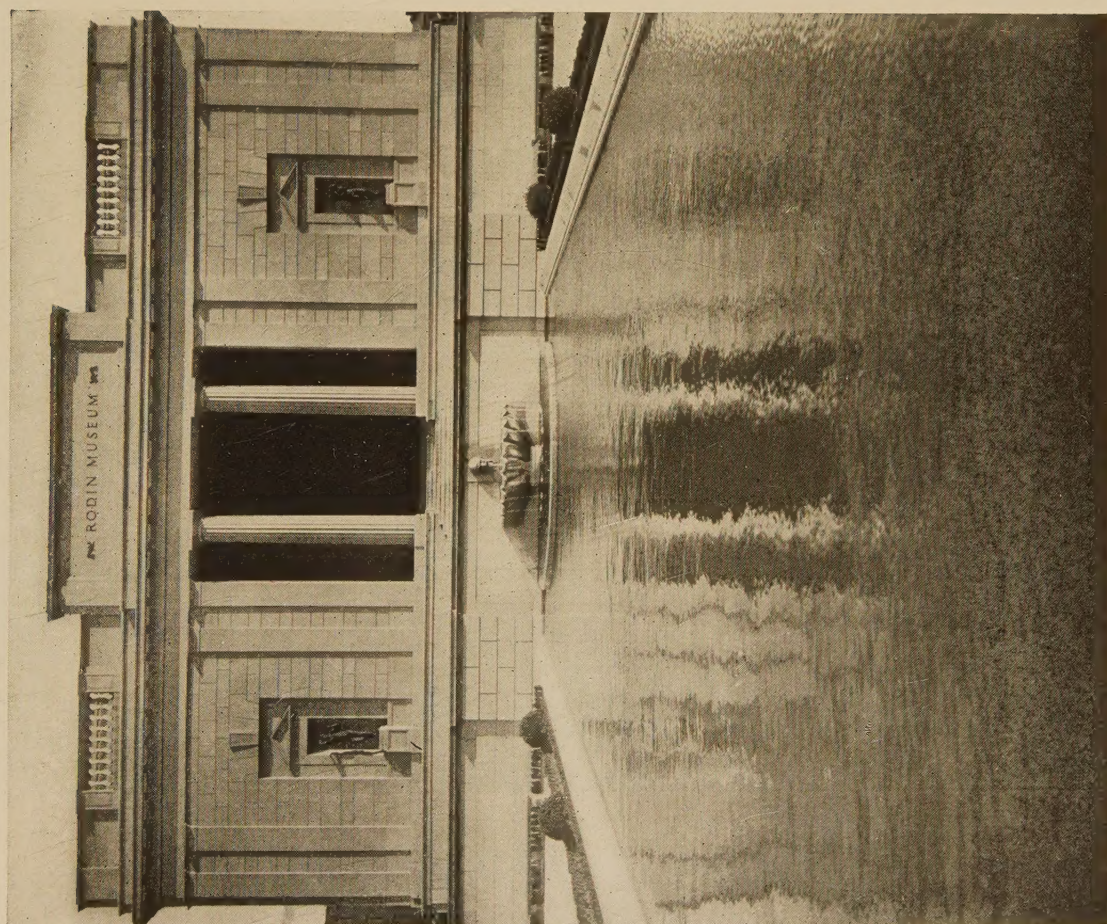


Photograph by Wm. M. Rittase

The main or garden façade of the Rodin Museum, a plan of which appears on page 193



Detail of the main façade

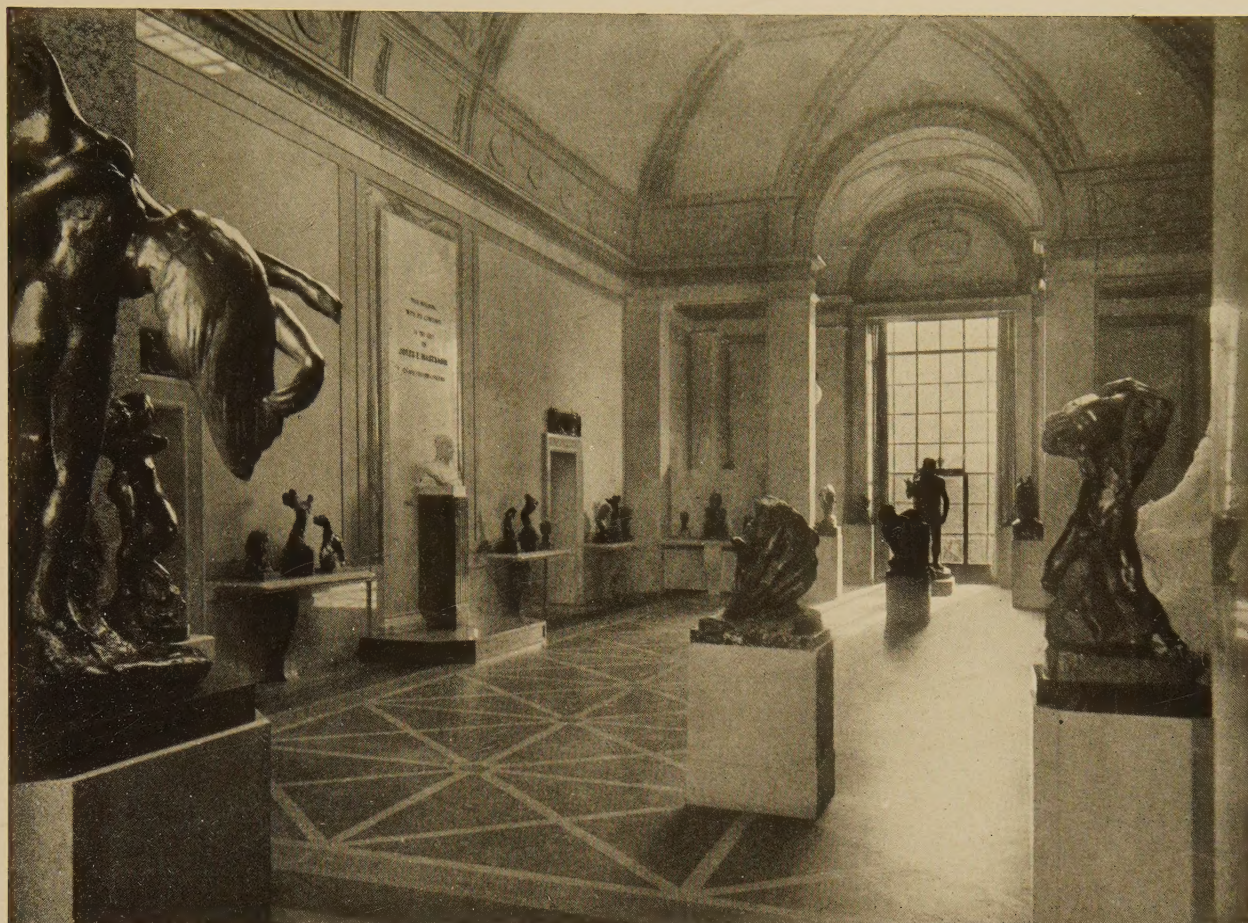


The museum and its reflecting pool

Photographs by Wm. M. Kiltase



The main gallery. In addition, as the plan shows, there are three smaller exhibition rooms, a library, and administration offices



Photograph by Wm. M. Rittase

Another view of the main gallery. The smaller sculptures are on marble shelves, about waist-high

by custom one places statues in a garden to embellish it, replied that it is rather to embellish the statues.

And now at Philadelphia, in the middle of the length of the Parkway, the wide avenue that each year with the growth of the trees takes on more of the aspects of the boulevards of Paris, there has been erected, through the generosity of Jules Mastbaum, in a garden setting worthy of Le Nôtre, a museum consecrated solely to the works of the impressionist sculptor who has done so much to mould the modern school.

And at each of these places is *le Penseur*, that "giant of bronze with bowed back and eyes staring into the infinite which he seems to scrutinize as a bottomless abyss"*—that *Penseur*,

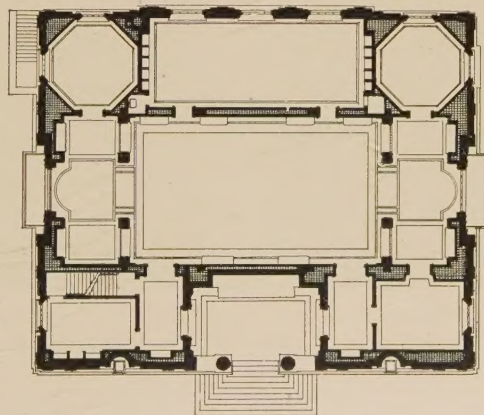
* René Chéruy, *L'Illustration*, 26 October, 1929.

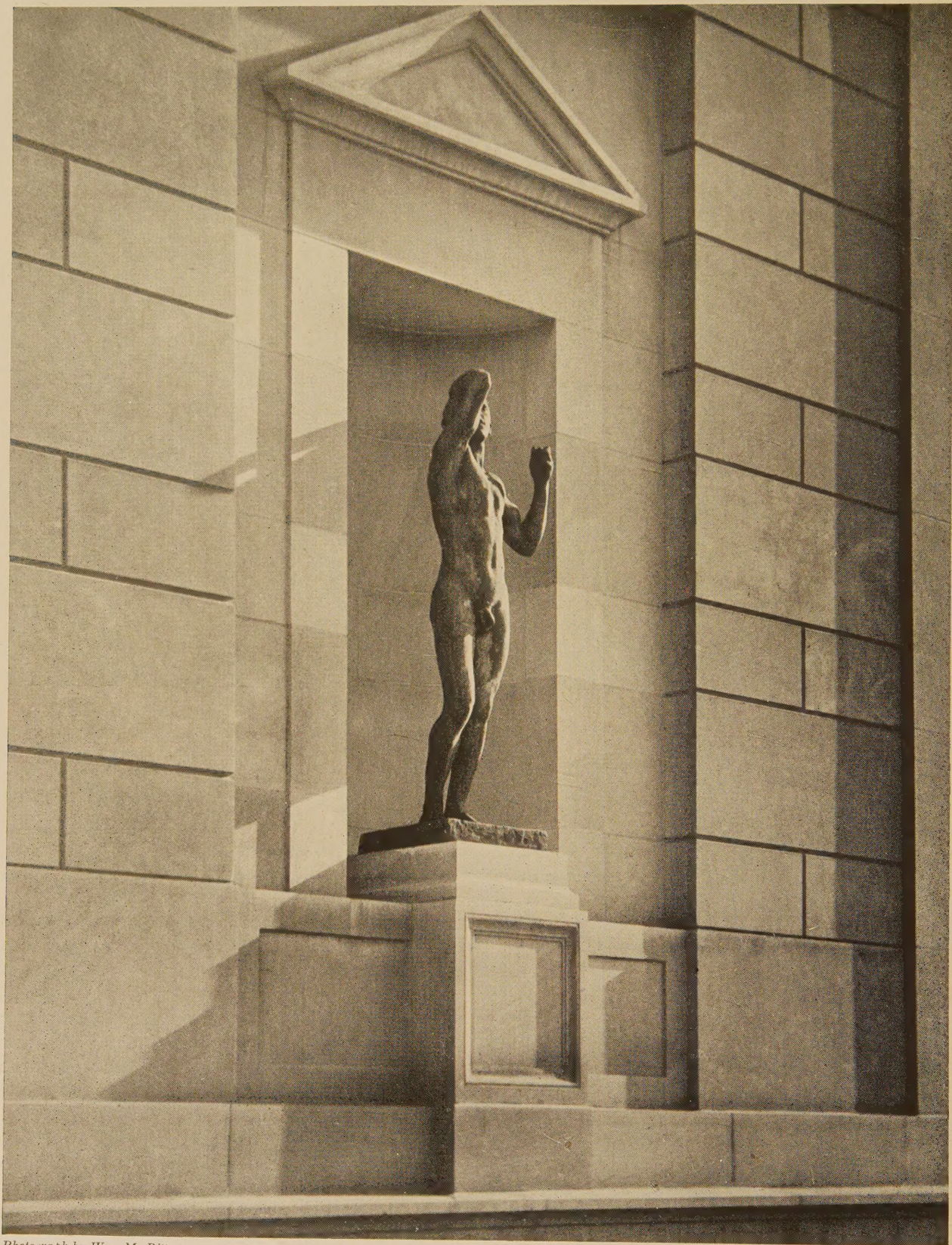
like a sphinx, that so typifies Rodin; *le Penseur* that perches in the tympanum of the *Porte de l'Enfer*, the tragic work of a lifetime; *le Penseur* that in 1904, offered by public subscription, was erected in front of the Pantheon in Paris, but since removed.

This "faithful bronze guardian" is in the forecourt of the Hôtel Biron; the original has been erected over the tomb of Auguste Rodin and Rose Rodin at Meudon—forever awake above them... "but it is no longer the bodies lost from the *Porte de l'Enfer* that he watches, but two old and very simple people who rest forever in the calm of an abandoned garden."*

And in Philadelphia, on a pedestal of French stone, and before a reproduction of the fragment of the old Château

* René Chéruy, *L'Illustration*, 26 October, 1929.





Photograph by Wm. M. Rittase

Detail of niche on the main façade. The exterior is built of limestone

d'Issy that Rodin rescued from the inexorable march of so-called progress and re-erected near his studio at Meudon, is again le Penseur, watching over the entrance to the new Rodin Museum of the Mastbaum Foundation.

Within the gateway reproduced from the Château d'Issy is the garden—enclosed by trimmed hedges, a magnolia tree of exquisite shape on either side, in the centre a reflecting pool with basins at its head, and at the far side the Rodin Museum, on a terrace, with the Porte de l'Enfer (first cast in bronze for this museum) visible at the back of a loggia, which forms the entrance to the gallery. Within the garden are several of the larger works—the Burghers of Calais, Adam, Eve, Shadow, and the Age of Bronze.

Ultimately the forecourt garden of the Rodin Museum will form an accent halfway between the public library and the museum on one side

of the gardens that are to line Philadelphia's Parkway.

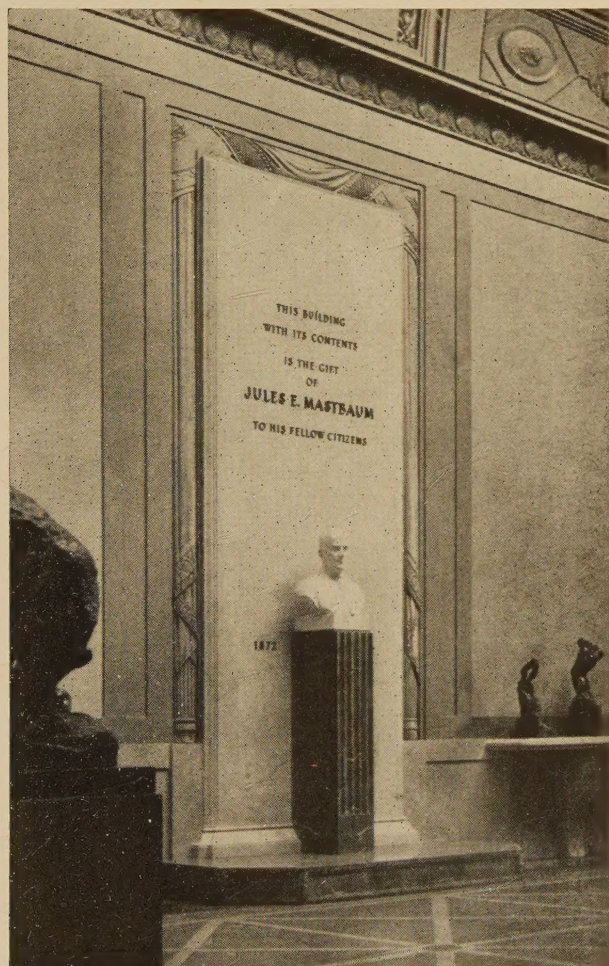
As setting for his work, Rodin had always a weakness for the classic architecture of the Louis XIV or Louis XVI periods.* A living art continues the works of the past, he said.† The architecture of this museum is a fresh interpretation of the classic, with the careful attention to detail, and trained sense of proportion that distinguish the work of its designers.

A visit to the Rodin Museum in Philadelphia, after seeing that in Paris, leads to but one suggestion for its improvement—that a painting by Renoir or by some other artist contemporary in spirit with Rodin be hung either side of le Baiser, for the paintings set off the sculpture and are, in turn, improved by it.

Had Jules Mastbaum lived to see the fulfill-

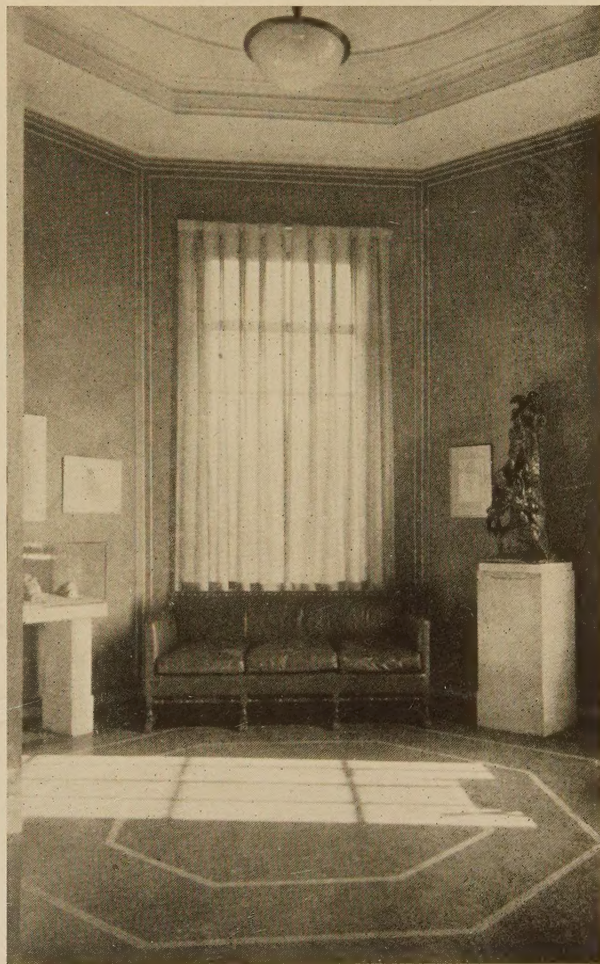
* Paul Gsell, "L'Art . . . Rodin."

† René Chéruy, *L'Illustration*, 26 October, 1929.

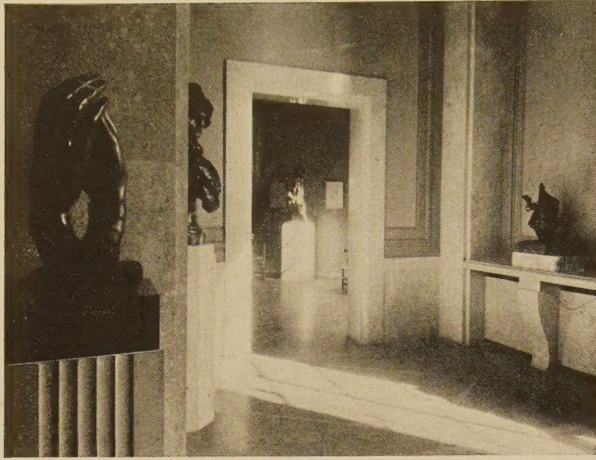


Photographs by Wm. M. Rittase

Jules E. Mastbaum memorial panel and bust. The background marble is of an ivory tint, the dado of Tavernelle marble, walls of plaster, floor of two-color terrazzo



One of the octagonal exhibition rooms. Here the wall tone is a Pompeian red trimmed in gray—a successful background for the bronzes and small framed drawings



Detail of main gallery, with entrance to one of the octagonal corner rooms



The Musée Rodin in Paris—the Hôtel Biron, built by Jacques Gabriel in 1728

ment of his vision of a museum to house the works of Rodin—a vision which came to him when he first visited the Hôtel Biron in Paris—it is quite possible that he would have realized

the artistic value of that Renoir among Rodin's bronzes, and have completed his collection, as that in Paris seems completed, by this touch of contemporary art.



*The library.
Here the
standing
woodwork
is of walnut,
the floor
of oak*



*In the
tympanum
at either end
are murals
by Franklin
Watkins—
Piranesian
fragments
in color*

Craftsmanship in Carved Wood

By *Eugene Clute*



Carving in the manner of Grinling Gibbons, using English limewood. By Adam Dabrowski

WOOD properly carved has a vibrancy and liveliness, peculiar to itself, that cannot be approached in any other material. This is due to the facets left by the cuts of the sharp tools and to the fibrous nature of the material. These facets and the wood fibres catch the light and reflect it at various angles, while the pores hold minute shadows that give depth of texture. Close-grained woods, such as limewood, have an almost translucent surface quality by reason of their structure, and each of the more open-grained woods has a beauty of its own.

The facets are the test of the craftsman's skill; if his hand is sure and sensitive, they are clean and crisp, whether they be so small that they are hardly visible and are gently merged one into another, as in carved limewood; or are relatively large and quite clearly defined, as in carved oak and in many other woods.

It requires a special sense, acquired through long practice of the art, to model wood in this way, often cutting across the grain to expose the fibres and to bring out to the full degree the plasticity of the medium. The carver must have a delicacy of touch akin to that of the skilled surgeon, and a love for his material that enables him to sense the variations of grain and density and to use the right tool cuts everywhere. Upon this skill in cutting is dependent much of the character of carved wood.

It is very much like looking through a microscope into a previously unknown world when one first examines fine wood carvings with an understanding of the technique and of the material. Something of this can be realized by examining the photographs shown here, which represent carvings by Adam Dabrowski, some of them as seen at close range.

Here one sees the widely different kinds of handling suited to many varieties of wood. In the carved oak moulding are seen particularly well the strong texture of this wood and the vigor of the chisel cuts that best bring out its character. The low-relief carving of Saint Catherine emphasizes the ivory-like delicacy of which limewood is capable, while the ornament in the manner of Grinling Gibbons shows the depth of under-cutting and the refinement of modelling to which this wood lends itself. One of the most



Carved pilaster in American oak, of American Indian and plant motives. By Adam Dabrowski



An elaborately carved oak door, designed by James Van Alst, architect, and executed by Adam Dabrowski; it is hung in the latter's studio as the door to his library



A close-up of the oak door at left; the carving is in very low relief and with a sturdiness well suited to the wood

beautiful effects is seen in the close-up photograph of a figure of the Madonna, in American walnut, in which the satin-like sheen of the wood, the silky fibres and the combined delicacy and crispness of the cutting are shown very clearly. Pine can be modelled with almost the facility of clay by the skilful carver, and there is the added advantage that the results have a greater degree of character than modelling in the more yielding material. This is seen in the Gothic capital intended to be finished in polychrome and gold, as part of the adornment of a chapel. There is a very wide range of grain and texture and of color in the woods ordinarily available for carving, all with distinct characteristics which render them suitable for works of different types. There are rare woods, too, often difficult to carve, but of marvellous quality; for example, the very hard

Brazilian wood of deep blood-red color, from which the figure of the Christ is cut. Its density is indicated by the character of the carving and the mirror-like smoothness of the facets.

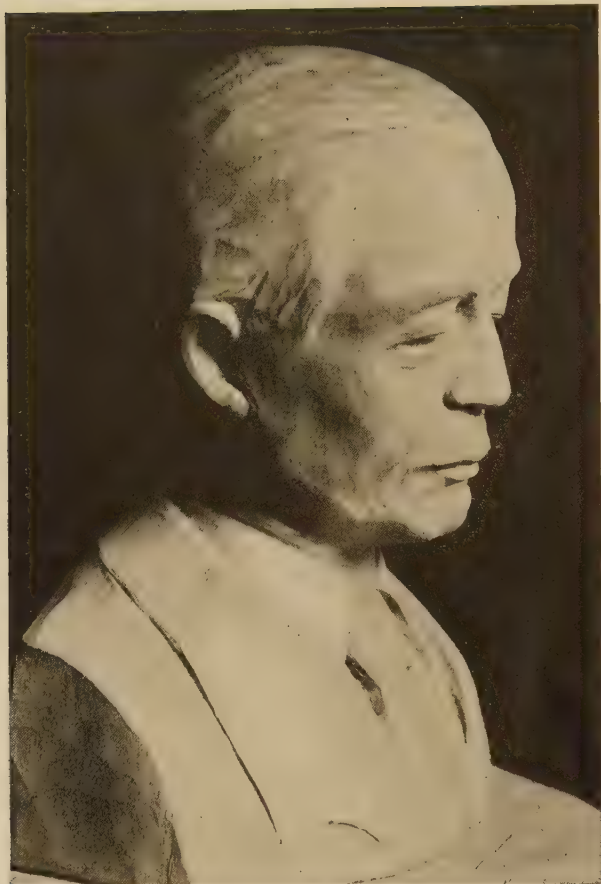
The craftsman in this medium needs a keen and true sense of modelling, the ability to see accurately in three dimensions, and to comprehend fully the characteristics of the objects and materials he represents. How important this is may be understood by studying the sweep of lines and the hang of the materials in the draperies shown in these photographs, particularly in the robes of the Madonna, carved in American walnut. Note the freedom with which the sleeves hang from the arms and the understanding with which the fine linen of the robe is



Close-up of the limewood carving shown on page 197, showing the surface quality which this fine-grained wood dictates. Note that while some surfaces are very smooth the facets are still present



Here is a carving in process—the design blocked out and the top partly finished, ready for the final tooling. Here again, an evidence of skilled woodcarving is the smooth surface which disdains sandpaper



Portrait bust of Bunkio Matsuki, in limewood. By Adam Dabrowski



A bas-relief of Saint Catherine, in limewood. By Adam Dabrowski

differentiated from the heavier material of the outer garment, also how the delicately wrought fleur-de-lys pattern is made to assist in expressing the weight and contour of the folds.

Portrait sculpture in wood is rarely seen, perhaps because it is so difficult, but its possibilities are evident in the bust of Bunkio Matsuki, the Japanese authority on Far Eastern arts, which is carved in limewood with great sensitiveness and very lifelike effect. It should be noted that the face is carved in boldly handled planes which can be seen in the photograph, if it is inspected closely. It is this that gives to the flesh tones their remarkable depth. This portrait reveals one of the main reasons for Adam Dabrowski's unusual degree of skill in modelling the more usual subjects in wood, such as the ornamental details of interiors, for he is a sculptor and was thoroughly trained at the Art Institute in Warsaw. Sometimes he models the subjects of his wood carvings in clay, just as any sculptor models his works for execution in bronze or marble. Sometimes he develops his

designs in charcoal sketches at full size. Often, however, he works directly in the wood, visualizing his completed carving in the block and chipping away the material to reveal it. One of his carvings photographed in process is shown here; the plant and flower forms are blocked out with definiteness and clear characterization, ready for the more delicate tooling needed to give them perfection. As this is to be an applied carving the background will be cut away.

The carved mantel and over-mantel in the board room of the Real Estate Land Title & Trust Company Building in Philadelphia affords an interesting example of the proper use of an historic source of inspiration. The document, in this instance, was a chimney piece with applied carvings from Clifford's Inn, now in the Victoria and Albert Museum. A photographic enlargement about eighteen by twenty-four inches in size was used, which was large enough to show the detail of the carving clearly. The reproduction of this photograph shown here, though quite small, owing to the limited



A capital to be decorated in polychrome and gold, carved in pine. All of these carvings are by Adam Dabrowski

A molding carved in oak, with typical low relief and vigorous detail

A bracket of oak carved with the grotesque head of a pirate



A figure of Christ carved in a very hard and dense Brazilian wood of deep blood-red color

Close-up detail of a Madonna. Carved in American walnut





At left a chimney piece in the board room of Real Estate, Land Title, and Trust Co. Building, Philadelphia. Horace Trumbauer, architect. Above is the "document" from which it was adapted, a chimney piece from Clifford's Inn, London, now in the Victoria and Albert Museum. It requires craftsmanship of a high type to execute something more than a copy in cases of this kind

space, shows the characteristics of the design sufficiently well to permit of comparison with the photograph of the new work. It will be noted that while the new carvings owe much to the old ones, a great degree of freedom has been exercised wisely in adapting these motives to their new place. The rather monumental treatment required by this large board room called for the greater richness in detail and for the closer massing together of the elements of the ornament seen in the photograph of the new chimney piece, and the result shows a consistency of character with the other features of the room, also an individuality and charm which could never have been achieved by a more literal interpretation, delightful though this old chimney breast is and however well it may have been suited to its place in the old building.

The chimney piece presents an example of carving in a large and richly decorated room; the small door shown in another photograph suggests the possibilities that lie in this manner

of enrichment for smaller, more intimate interiors. This is one of the doors to Adam Dabrowski's library in his studio. It was designed by James Van Alst, architect, and is of American oak carved in low relief. The background being recessed and the carving quite flat, this door has a modern air, though the ornament is of traditional type. The technique of the carving is shown by a close-up photograph.

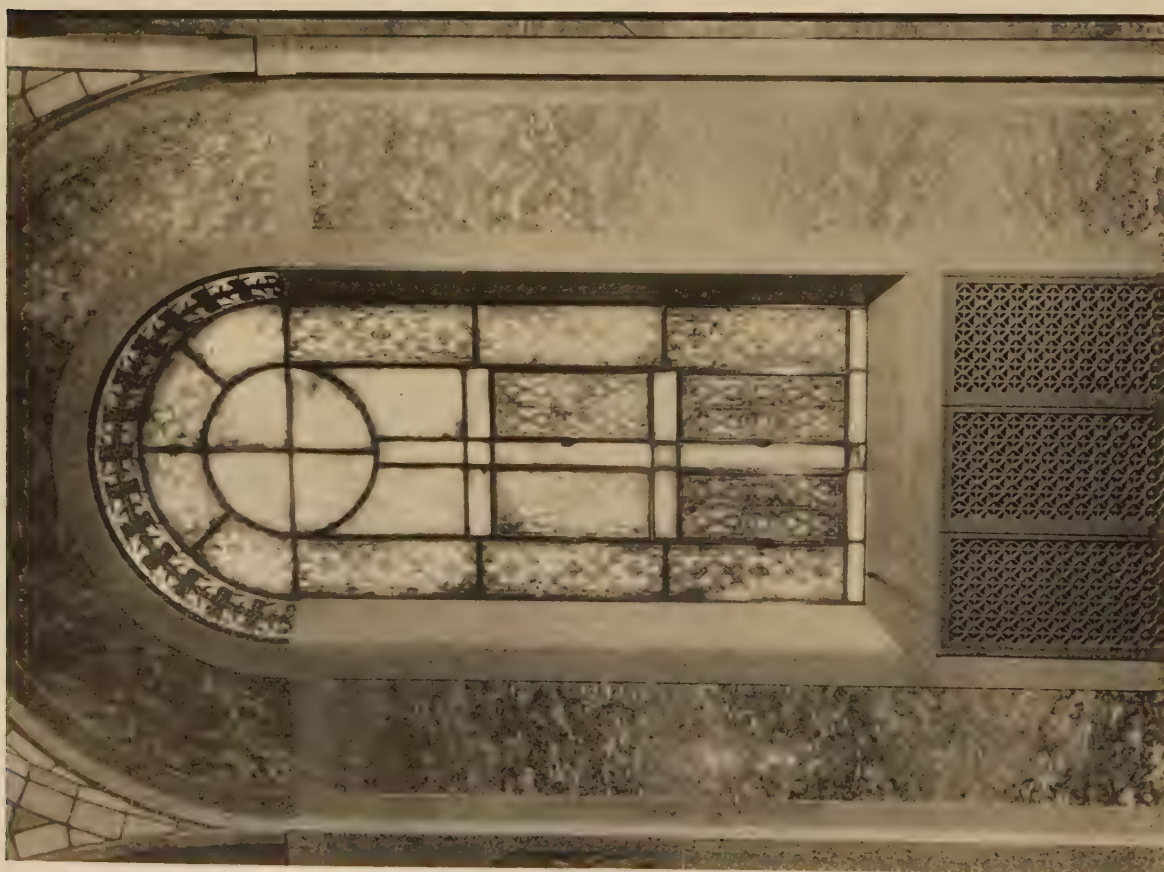
Craftsmanship is a prominent feature of the modern movement in all European countries, particularly in Sweden, the country whose work in architecture and the allied arts has, during the last few years, aroused more interest, probably, among our architects than the work of any other country. Undoubtedly craftsmanship will assume a similar degree of importance in our own modern architecture, for we have the craftsmen and our art industries are well developed, with men able and eager to produce materials and workmanship of the highest artistic merit under the leadership of the architects.



Photographs by Richard Southall Grant

Alabaster has been treasured for its æsthetic possibilities from very early times. In Byzantine architecture the material was used in windows for its translucent beauty in the carved slab. Here is illustrated a recent example of alabaster's use in this way, designed by Paul A. Goettelmann under the supervision of Murphy & Olmsted, and executed in Volterra, Italy, by Conrad Schmitt Studios. The slabs are about five-eighths of an inch thick, carved to about three-eighths in the background of the design

ALABASTER WINDOW, SACRED HEART CHAPEL, BRENTWOOD, L. I., MURPHY & OLMSTED, ARCHITECTS



ALABASTER WINDOW, SACRED HEART CHAPEL, BRENTWOOD, LONG ISLAND. MURPHY & OLMSTED, ARCHITECTS

San Diego Exposition, Fifteen Years After

The Panama-California International Exposition was held in San Diego in 1915. It was unique in the fact that one architect was in charge of the general scheme—Bertram G. Goodhue—who found time also to design several of the more important buildings



The problem, "What shall be done with our old expositions?" has been solved by San Diego. The grounds have been maintained as a park; many of the buildings have been retained and put to use as art museums, concert-halls, etc.

Below, the main entrance at the end of the bridge shown above

The gardens, beautiful in 1915, have been developed to a luxuriant maturity



The rear of the former California State Building

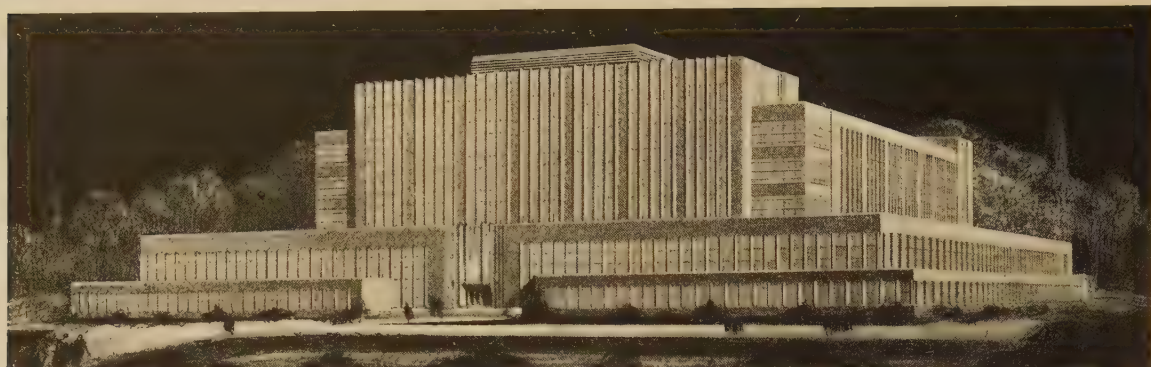


The Horticultural Building still serves its original purpose

The main avenue with Goodhue's lovely tower of the California State Building, now an art museum



Architectural News in Photographs



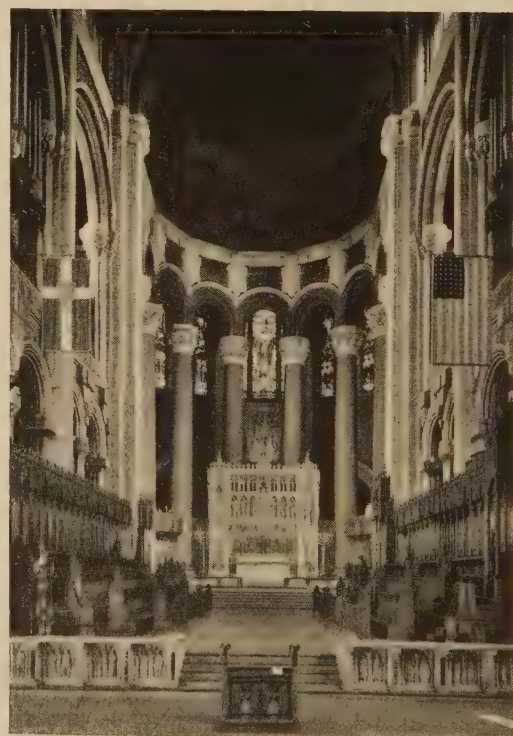
New building for the United States Department of Agriculture's Forest Products Laboratory, Madison, Wis. Holabird & Root, architects; drawing by Gilbert Hall



York & Sawyer's perspective drawing of the new gymnasium for Rutgers University, New Brunswick, N. J. The building is nearing completion



The nave of the Cathedral of St. John the Divine, New York City, is finished, as designed by Cram & Ferguson. The choir, at right, shows the earlier work in choir and apse under Heins & La Farge

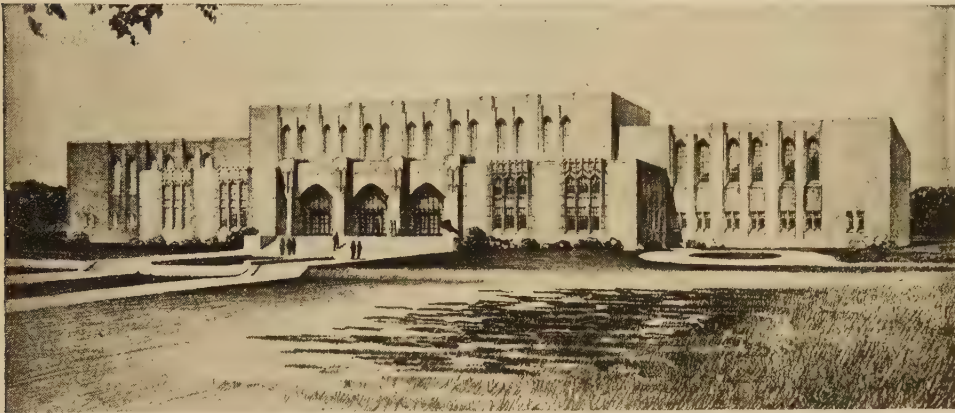




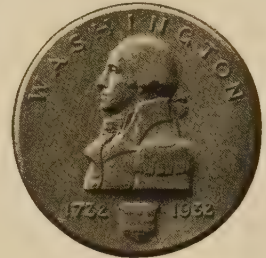
The city department-stores are branching out in the suburbs—Altman's in East Orange, N. J. Frederick G. Frost, architect



The Bronx County Building, New York, work upon which is beginning. Max Hausle and J. H. Freedlander, associate architects



Preliminary perspective of the proposed memorial to Knute Rockne of Notre Dame. Maurice Carroll, Chester E. Dean, architects



Obverse and reverse of the commemorative medal to be used in connection with the George Washington bicentennial. Laura Gardin Fraser, sculptor



A model for the University of Montreal, construction upon which buildings is now well under way. Ernest Cormier, architect and engineer



New York City's new home for the Curb Exchange. Starrett & Van Vleck, architects



BOOK REVIEWS

MODERN ARCHITECTURE: Being the Kahn Lectures for 1930. By FRANK LLOYD WRIGHT. Preface by E. BALDWIN SMITH. 115 pages, 8¼ by 10½ inches. Illustrations from drawings of Mr. Wright's work. Princeton, N. J.: 1931: Department of Art and Archæology of Princeton University. \$4.

Mr. Wright steps outside of his usual rôle with a preliminary apology: "I suppose I am to suffer disadvantage, being accustomed to saying things with a hod of mortar and some bricks . . . rather than by speaking or writing"—an apology that is entirely unnecessary, since Mr. Wright puts his thoughts into words with as much emphasis, if not as much beauty, as he puts his thoughts into design. There is crowded into these six lectures a great deal of the author's philosophy, some of his contempt, and many of his ideals: 1. Machine, Materials and Men; 2. Style in Industry; 3. The Passing of the Cornice; 4. The Cardboard House; 5. The Tyranny of the Skyscraper; 6. The City.

LUMBER AND ITS USES. Fourth edition, revised and enlarged. By ROYAL S. KELLOGG. 378 pages, 5¾ by 8½ inches. Illustrations from photographs and diagrams. New York: 1931: Scientific Book Corporation. \$4.

A handbook on the lumber industry which has made a place for itself since 1914 among manufacturers, students, and others concerned with the industry. New material in this edition is that relating to American Lumber Standards, also the recommended grading provisions for red cedar shingles.

ITALIAN DOORWAYS. By CHARLES B. MCGREW. Preface by Gorham Phillips Stevens. 194 pages, 9¾ by 10¼ inches. Illustrations from photographs and measured drawings. Cleveland, Ohio: 1929: J. H. Jansen. \$15.

Mr. McGrew is a recent holder of the Francis J. Plym Fellowship in Architecture, and he has employed his time to excellent advantage. The book has the great merit of showing, where measured drawings have been made, the photographic illustrations directly facing these measured drawings to permit of ready comparisons.

PRACTICAL WATER-COLOR SKETCHING. By E. G. LUTZ. 214 pages, 5 by 7½ inches. Illustrations from diagrams and drawings. New York: 1931: Charles Scribner's Sons. \$2.

Mr. Lutz has established for himself the reputation of being able to teach art. His books on composition, anatomy, lettering, practical drawing, figure work, comprise an invaluable library on art

instruction. Mr. Lutz is eminently practical, both in the matter of technic and in the theory of water-color representation.

CARE AND REPAIR OF THE HOUSE, Including Minor Improvements. By VINCENT B. PHELAN. 121 pages, 5¾ by 9½ inches. Illustrations from diagrams. Building and Housing Publication BH15. Pamphlet binding. Washington: 1931: U. S. Department of Commerce. 20 cents.

Concise information from the National Bureau of Standards addressed to the handyman.

ARCHITECTURAL SHADES AND SHADOWS. By EDGAR GREER SHELTON. 159 pages, 8 by 10½ inches. Illustrations from diagrams, wash drawings, and photographs. New York: 1931: D. Van Nostrand Co., Inc. \$3.50.

A book for the student, assuming knowledge of orthographic projection and an elementary knowledge of descriptive geometry. The author makes clear, by description and by problems, the three accepted methods of casting shadows: oblique projection; auxiliary or tangent cones; auxiliary or slicing planes. The author is Associate Professor of Architecture in Texas Technological College.

LABORATORY TESTS OF REINFORCED CONCRETE ARCHES WITH DECKS. By WILBUR M. WILSON. 100 pages, 6 by 9 inches. Illustrations from diagrams and photographs of tests. Pamphlet binding. Urbana, Ill.: 1931: The University of Illinois. 50 cents.

THOMAS JEFFERSON, ARCHITECT AND BUILDER. By I. T. Frary. Introduction by Fiske Kimball. 160 pages, 9¾ by 12¼ inches. Illustrations from photographs and plans. Richmond, Va.: 1931: Garrett & Massie. \$7.50.

It has long been an open question as to just how much of an architect Thomas Jefferson really was. Mr. Frary, who is a lecturer and teacher at the Cleveland Museum of Art, goes much farther into this matter than many previous students of early American architecture. Jefferson's relations with Latrobe and Thornton are made more clear, as well as the fact that Jefferson was possibly rather more of an inventor than a designer, his efforts at design leaning heavily upon Palladio and other classical precedent which, with mathematical precision, he adapted to his needs. Unquestionably, his mind was one that conceived the grand plan; his ability was not one that easily worked out details of design, though structural and mechanical processes were among the many things that he mastered with unusual thoroughness.



Photographs by Helen E. Miller.

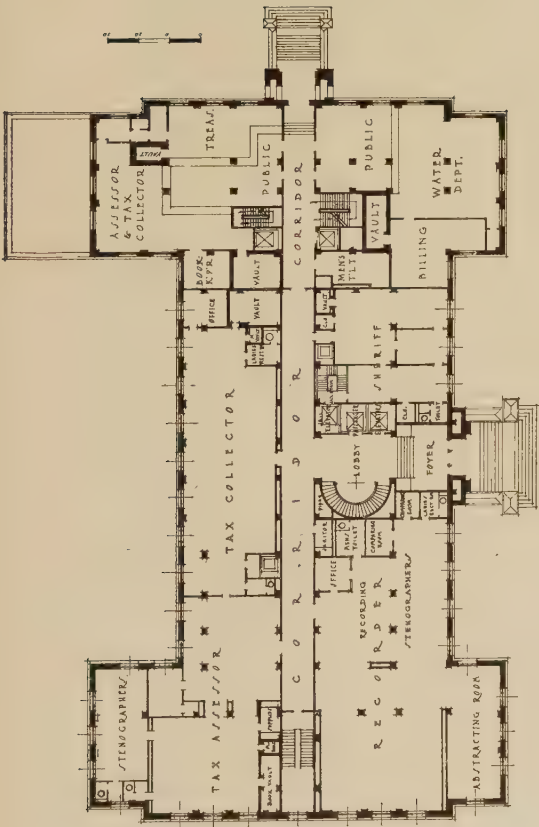
Here is an unusual example of architectural collaboration: a county court house and a city hall combined in a building of marked architectural unity, yet each portion was designed and its erection supervised by a separate architect. The court house is the work of Edward F. Neild; the city hall, the work of Lescher & Mahoney.

MARICOPA COUNTY COURT HOUSE AND PHOENIX CITY HALL, PHOENIX, ARIZ.

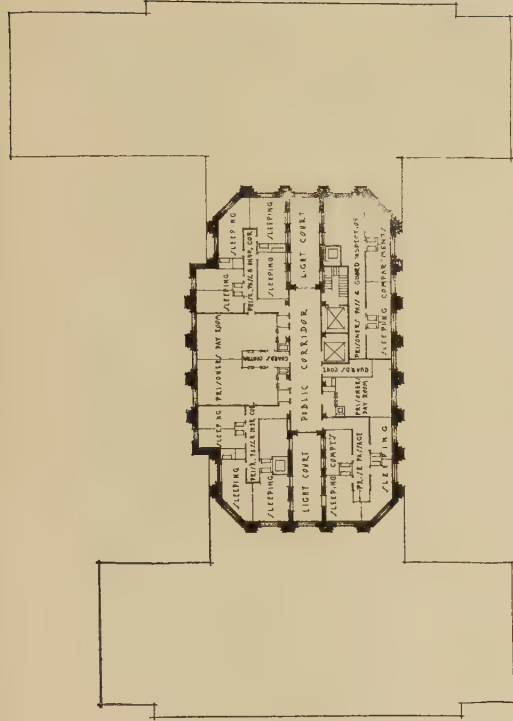


MARICOPA COUNTY COURT HOUSE AND PHOENIX CITY HALL, PHOENIX, ARIZ.

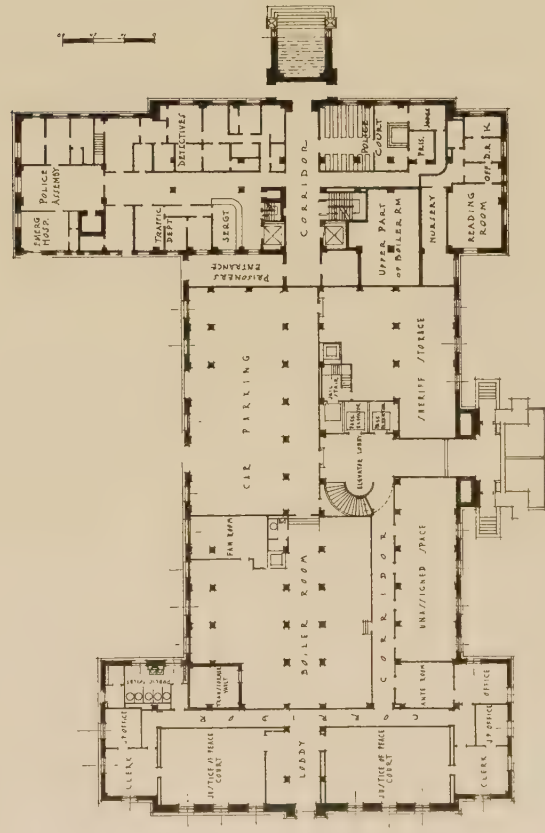
EDWARD F. NEILD; LESCHER & MAHONEY, ARCHITECTS



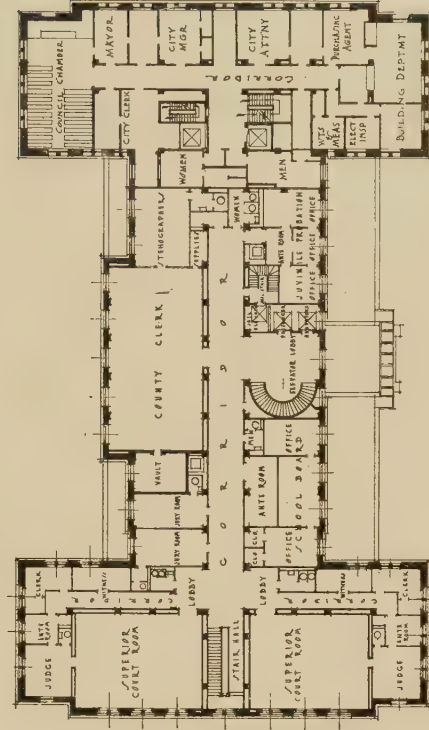
First-floor plan



Sixth-floor plan



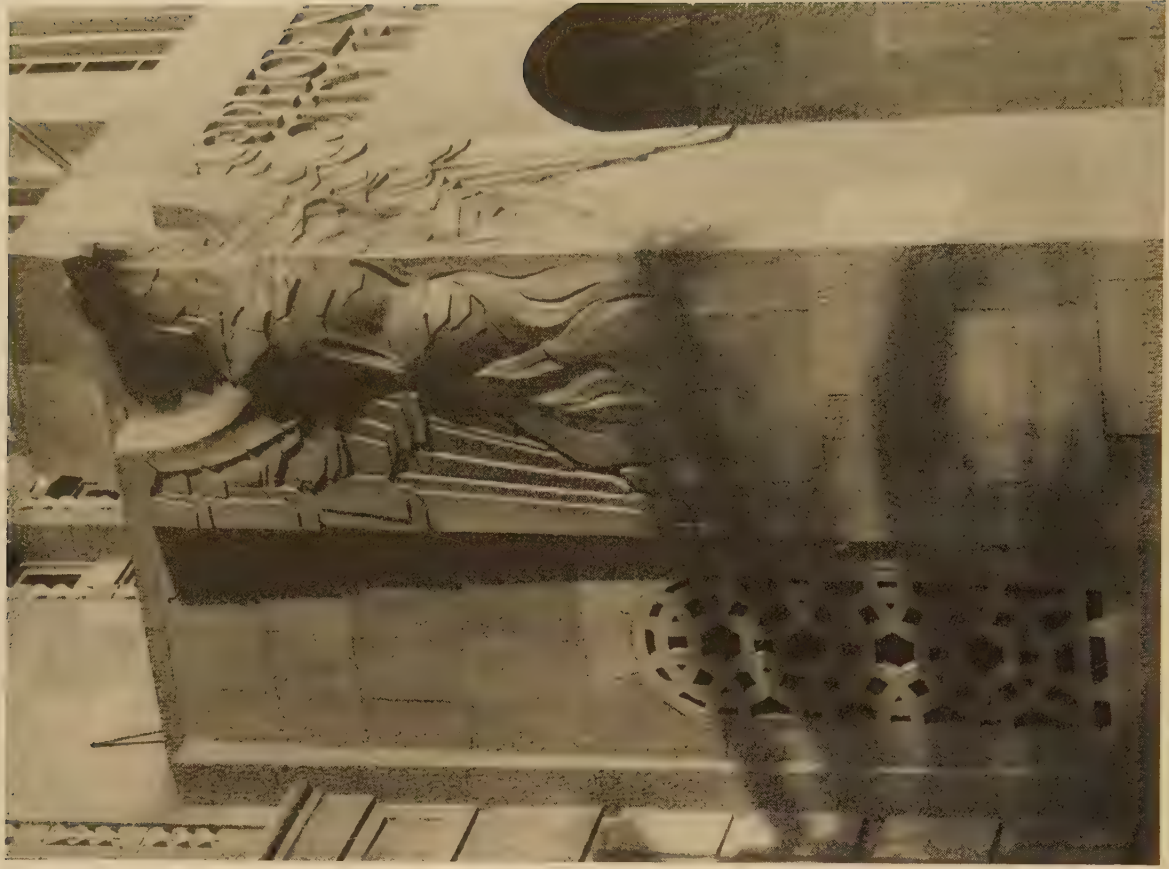
Ground-floor plan



Second-floor plan

MARICOPA COUNTY COURT HOUSE AND PHOENIX CITY HALL, PHOENIX, ARIZ.

EDWARD F. NEILD; LESCHER & MAHONEY, ARCHITECTS



MARICOPA COUNTY COURT HOUSE AND PHOENIX CITY HALL, PHOENIX, ARIZ.
EDWARD F. NEILD; LESCHER & MAHONEY, ARCHITECTS

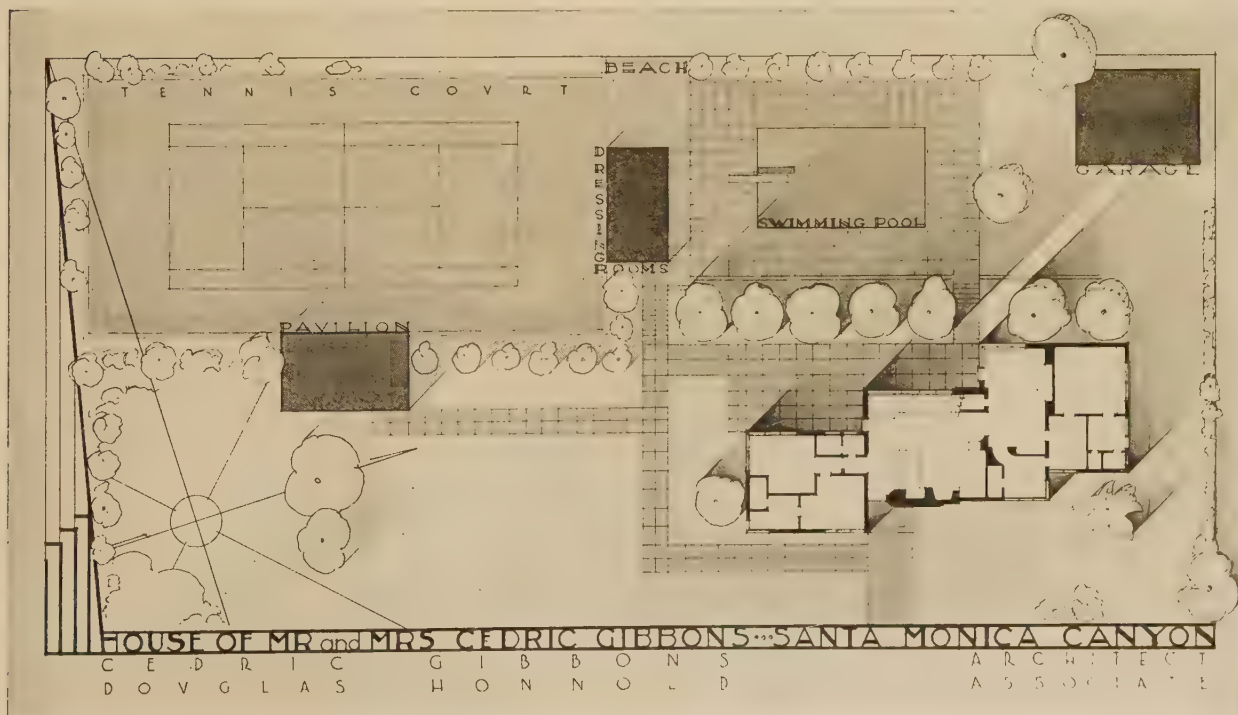


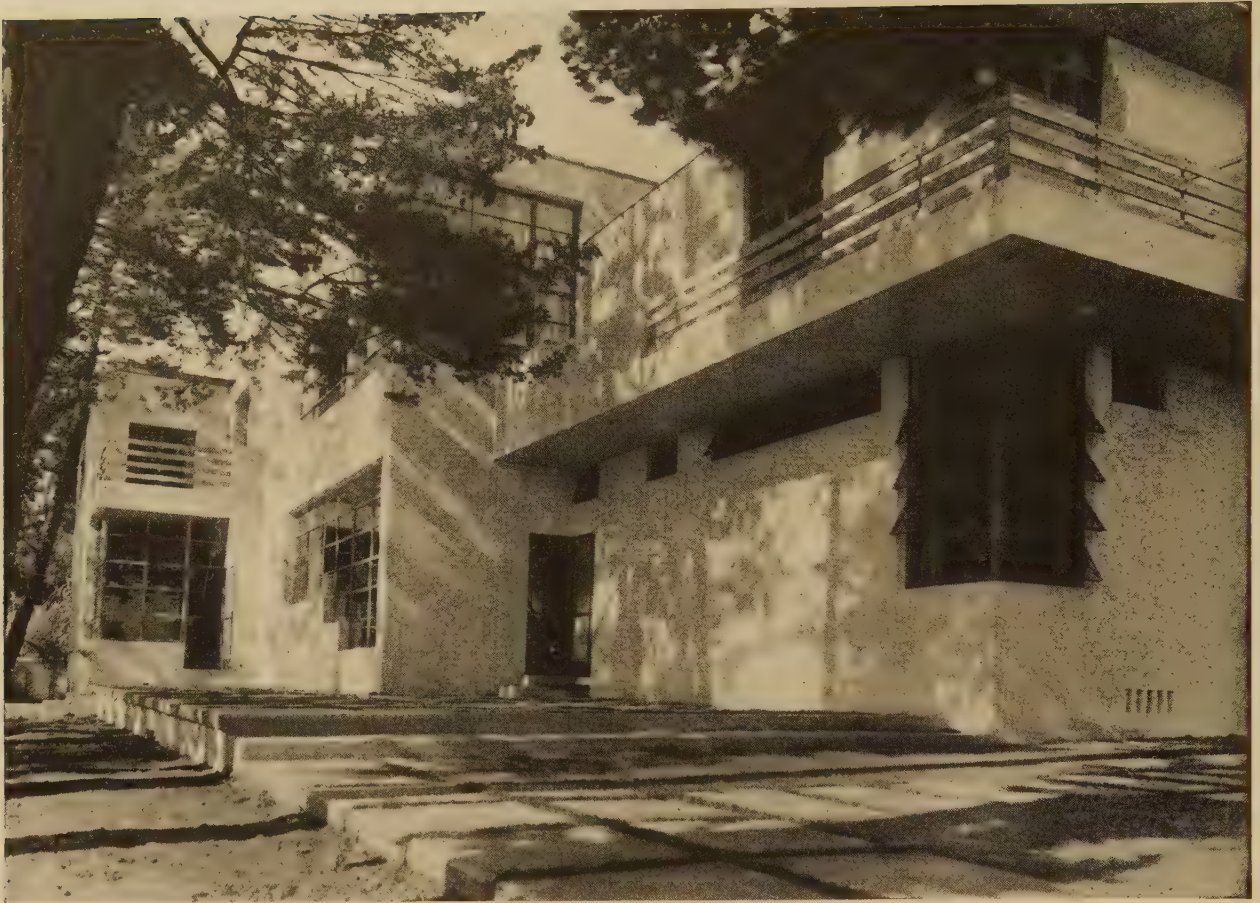
The east or entrance front. Walls are of stucco on frame, the lower portion being copper sheathed

HOUSE OF MR. AND MRS. CEDRIC GIBBONS, SANTA MONICA CANYON, CALIF.

CEDRIC GIBBONS, ARCHITECT; DOUGLAS HONNOLD, ASSOCIATE

Photographs by Clarence Spencer Bull



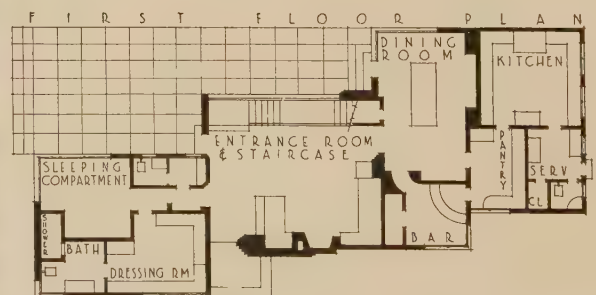


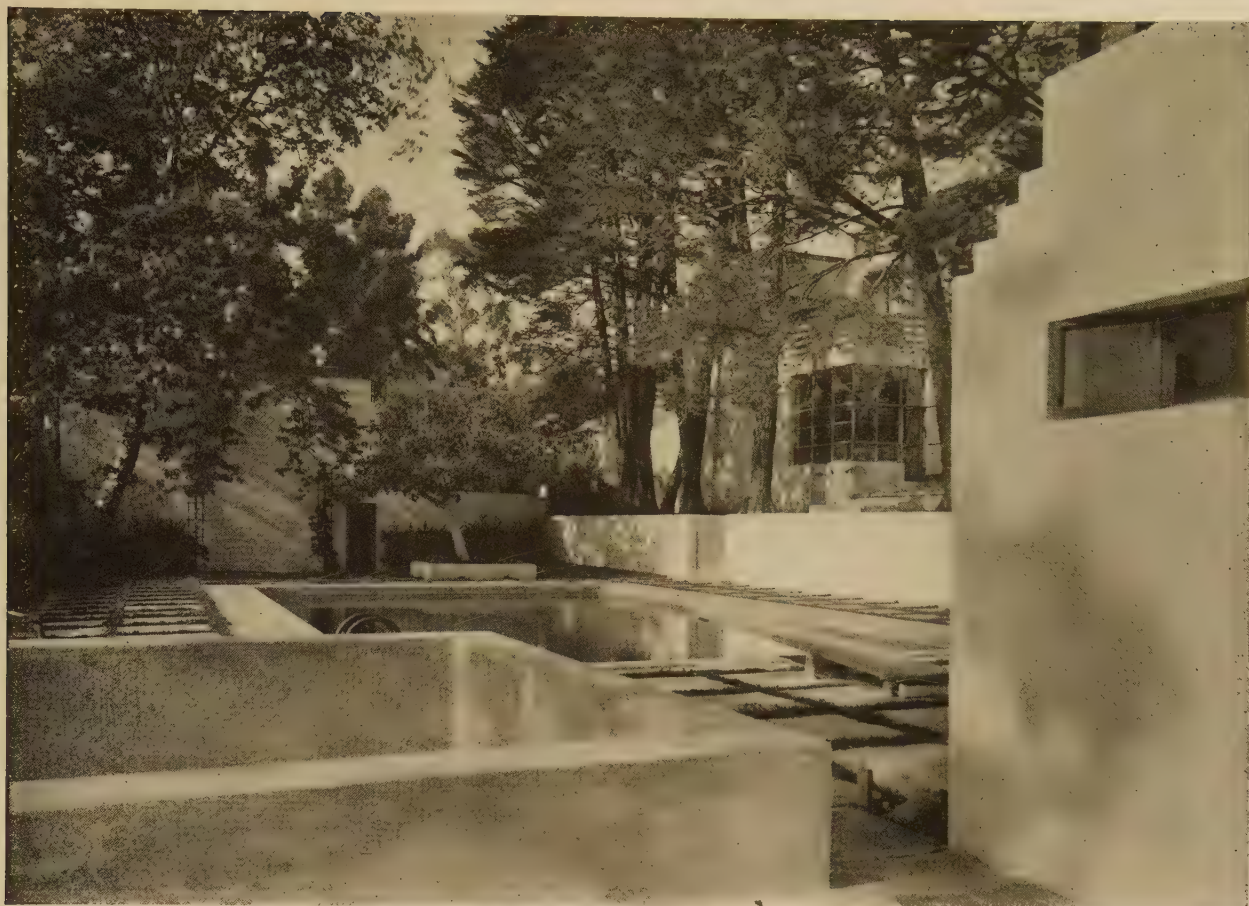
The garden front, where large windows furnish more than the usual amount of light and air. Those in the near corner open into a sleeping compartment



The pavilion that overlooks the tennis court, as seen from the rear

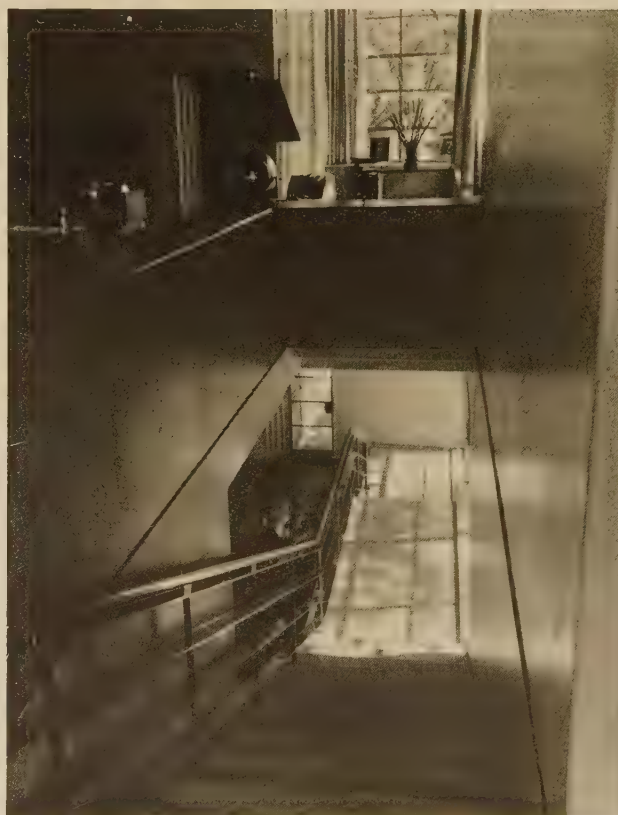
Practically the whole of one side of the main staircase is of glass



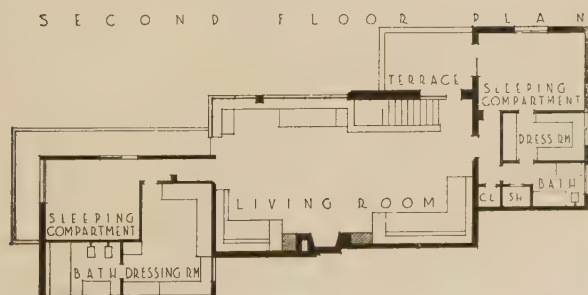


Looking across the swimming pool toward the garage, with the dressing-rooms building at the right and the dining-room window in the distance

Looking down the stairs from the living-room into the entrance-room below. Stairs are of light tan terrazzo; rail of chromium-plated steel



The living-room is lighted from one side and a corner





The living-room. Walls and ceiling are warm gray; bookcases and case work, terra-cotta color; floor, black linoleum; window coverings, natural duck



The living-room from the opposite direction, looking toward the head of the stairway



In the living-room. Fireplace face and hearth are of black terrazzo, shelf of nickel-silver, couch covering of honey-colored velvet



A view from the stair landing into the fire corner of the entrance-room



Dressing-room of Mrs. Gibbons, who in the world of the cinema is Dolores Del Rio. Wall and ceiling are pale green; cases covered with silver-leaf

The little building of dressing-rooms at the end of the swimming-pool terrace. Behind it is the tennis court



NUMBER XVII
IN A SERIES
OF
WORKING DRAWINGS

By Jack G. Stewart

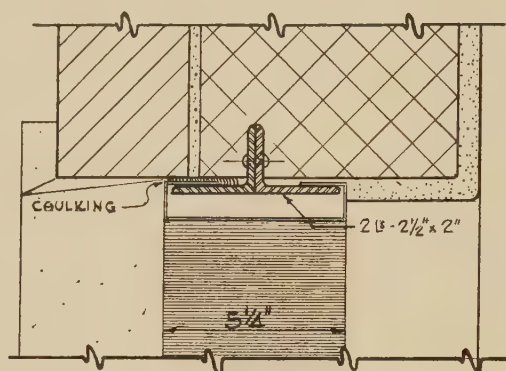
This series, in which one drawing will appear each month, is designed to cover the smaller practical problems that confront the architect in his day's work. The subjects chosen are those which, while not uncommon, call for some experience and knowledge of approved solutions. Next month the subject is a Detail of Revolving Doors



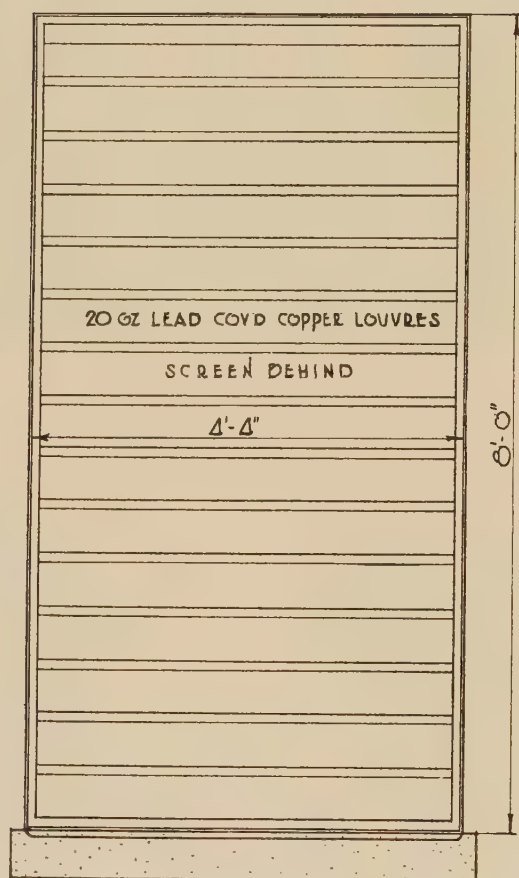
[ARCHITECTURE]
CHARLES SCRIBNER'S SONS

PREVIOUS SUBJECTS IN THIS SERIES

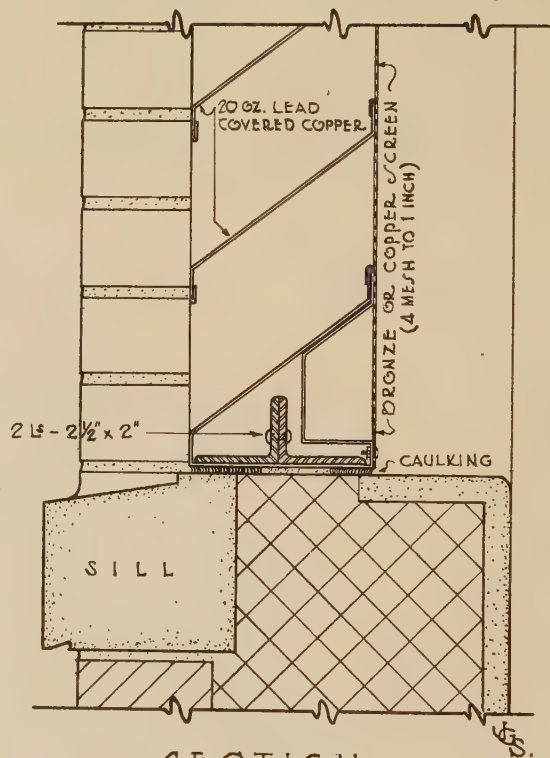
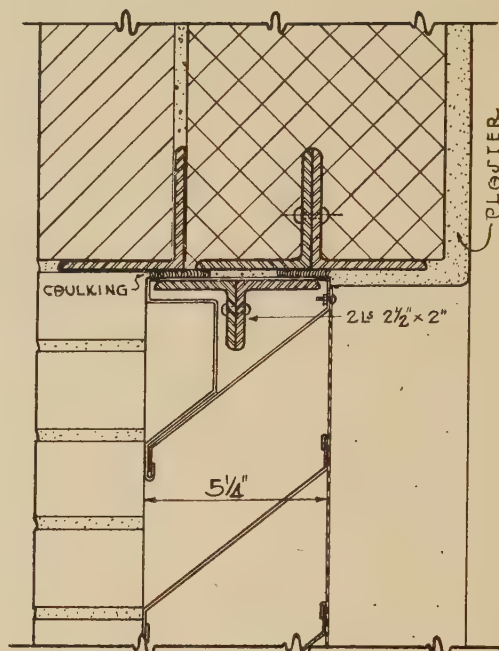
- I. FLAGPOLE HOLDER ON AN EXTERIOR WALL
- II. RADIATOR ENCLOSURES
- III. CIGAR SALES COUNTER
- IV. WOODWORK IN A LIBRARY
- V. BUILT-IN KITCHEN CUPBOARD
- VI. VARIOUS TRIMS AND MOULDINGS
- VII. TELEPHONE BOOTH
- VIII. MEN'S TOILET
- IX. WINDOW SPANDRELS
- X. CIRCULAR STAIR FOR A RESIDENCE
- XI. DETAIL OF METAL STAIR CONSTRUCTION
- XII. DETAIL OF ELEVATOR CONSTRUCTION
- XIII. DETAIL OF FOLDING PARTITION
- XIV. DETAIL OF COUNTER-WEIGHT SLIDE DOOR FOR DUMB-WAITER
- XV. SCALE DETAIL OF MANTEL
- XVI. DETAIL OF BANK SCREEN AND COUNTER



· JAMB ·



· ELEVATION ·



· SECTION ·

· DETAIL · OF · METAL · LOUVRE ·

· SCALE ·

0 1' 0" 2' 0"


0 1" 2" 3" 4" 5" 6"

· PLATE N^o 17 ·

Some Pitfalls in Supervision

By W. F. Bartels

XV. HOLLOW TILE, GYPSUM BLOCK, GLAZED TILE, CINDER BLOCK AND STRUCTURAL GLASS

N laying up hollow tile, the blocks should be well bedded and the joints properly filled and pointed up. Particularly is the latter necessary when smooth-faced tile are to be left exposed. They should be especially well bedded when used for floor supports and other purposes, besides affording a plastering surface. The bed lines or horizontal joints should be level. This is difficult to execute if the tile are not true. If good tile are furnished the responsibility can be put squarely up to the mechanic, as nothing but a wall with plumb and level joints should be passed by the superintendent. Where smooth-face tile is used, the material should not be blistered. If a tile wall is to be prominently exposed and a uniform shade is desired, it is well to pick the blocks from the kiln if possible.

There is a wide variety in the shape of tiles and advantage should be taken of this when possible to make a better job. For example, in backing up brick with tile, it is the practice of many bricklayers to use a twelve-inch block between headers and a bat or brick in back of the brick header. A much neater and more desirable method is to use a header or shoe tile instead of brick, thus giving the interior wall a surface entirely of tile. Half tile should be used instead of shattering a large tile and putting in the pieces, or else using brick to fill a space too narrow for a full-sized block.

Tiles should not be "chased" for pipes or conduits. Seldom is such chasing done without ruining the block. Moreover, it invites possible future damage to the wall or partition.



GYPSUM BLOCK

Gypsum blocks are well suited to interior partition work and are used extensively for this purpose. Where any wood grounds are to be applied, the blocks offer a good nailing base.

They are light, easy to handle and lay, and are readily cut to fit irregular spaces. They should be well bedded and fitted into place. They must be well blocked up under any concrete arch or beam with which they may come in contact. Their disadvantage, however, is that, due to their comparative smoothness, mortars do not adhere to them as well as to tile blocks. The superintendent must see that the blocks are well laid, wedged in where possible, and not carried too far horizontally or too high without additional support.



GLAZED TILE

By far the greatest amount of wall tile is used for bathroom and kitchen walls. It may be white or colored, but in all probability it will be of standard size.

The walls when prepared for tile should be plumb, square, and fairly even. Failure in this regard will cause the cap either to fail to meet the plaster or to be almost buried in it. The former may be remedied to a degree by bringing the plaster out, when patching, to meet the nosing, but at best this is a poor makeshift. On a first-class job it should be insisted that the rough walls be plumb. Moreover, to even out the finish tile on an untrue wall will force the tilesetter to use much mortar on some tiles and but little on others, thus paving the way for loose tilework.

In non-fire-proof dwellings where tile is set against wire lath, the latter should receive a scratch coat of portland cement mortar. The lath should be well fastened so as to give an adequate backing for the tile.

The horizontal joint lines of the tile work should be kept level and the vertical joints true—which of course they will be if properly started at the corners. No split tile should be allowed over the bath tub, and this will not be necessary if the courses are properly laid out beforehand. If any adjustment is needed it is far

better to take care of it in the base course. Tiles should be so fitted around pipes, outlet boxes, etc., that the escutcheons or plates will fully cover the ragged edges and no holes will be left showing. If possible to inspect the work before it is grouted or the joints filled in, defects will be revealed which will subsequently be more difficult to detect. Where wall fixtures are built in, the joint around them should be uniform in width. Sometimes if a fixture is slightly smaller in size than the space left for it, the tile-setter will merely set it in, thus leaving a large joint on the top and probably on one side. This can easily be avoided if the setter will take the time to wedge the fixture in with small wedges, or toothpicks, which will keep an even joint until the mortar has set, when of course the toothpicks will be taken out.

The grade of tile called for in the specification must be demanded on the job. There are three grades of tile: Selected, Standard, and Commercial. In addition there are, of course, "culls," which are the scraps and leftovers. It will be found that the label for the Selected grade will be pink; that of the Standard, blue; the Commercial, yellow. Each grade is allowed a tolerance of 5 per cent of the grade lower. The minimum grade requirements for tile of each class for such things as wedging, pulls, welts, etc., may be obtained from Bulletin 61, Department of Commerce. Culls will generally come with no markings except for the word stamped on the barrels. In some cases culls may be acceptable. For example, a large tile may be defective on one end. By cutting off the defective end of all such tile and filing the cut end a product may be obtained approaching or even surpassing the requirements for commercial grades. However, it is best to be more than cautious with defective material of this nature and not even permit it on the job unless allowable under the specifications.



Particular care must be taken around windows, especially if the stool is to be of tile. There is always a tendency to make the tile conform to the window, even if the bottom of the frame is not level. It is better to have this remedied, for otherwise the tiling on one side of the opening will not correspond to that on the other, and a poor job is certain to result.

CINDER BLOCK

If, after investigation, an architect decides to use cinder block, the superintendent should make certain that the blocks used are the same as the ones upon which the owner or architect based his decision. Due to local conditions, the block may be good or bad, depending upon the manufacturer. The blocks should be well bedded, with vertical joints slushed up. As with hollow tile blocks, proper sized blocks should be obtained rather than splitting a block to fit.

STRUCTURAL GLASS

Recently structural glass has come more and more into use. Its substitution for marble and tile in toilet rooms is already fairly general. Black and colored glass has been widely used for store fronts. Here, however, it faces a difficult test. It must withstand the weather, Hallowe'en extravaganzas, and sidewalk accidents. When glass is used beneath show windows, the problem of a good installation is doubly difficult. With this in mind it is the superintendent's duty to see that it is set in place in as substantial a manner as possible. The glass should be fastened to a suitable backing with a special plastic cement. The edges should be cushioned with felt or elastic cement. Of course no load should be allowed to come on it. Where it would meet the sidewalk, as in show-window bulkheads, an adequate expansion joint must be left.

When glass is used instead of tile or marble for toilet-room partitions, it must be checked as to being plumb, level, and set in the proper location. Fittings should hold it snugly.

One dividing partition now used is made of two separate sheets which are fastened together by plastic cement. Through these two sheets run the two anchors, which should be securely fastened to the wall. This type has the advantage of eliminating the fastenings generally used on the front, but of course the top surface cannot be as neat as the one-piece job. A one-piece front sets solidly in the floor and to this the dividing partition is attached, thus making a substantial job.



In Mr. Bartels's next installment, to appear in the December issue, his subject will be Plumbing Fixtures.



ELIOT HOUSE, HARVARD UNIVERSITY.

COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS
From the pencil drawing by Constantin A. Pertzoff

« ARCHITECTURE »



LEVERETT HOUSE, HARVARD UNIVERSITY. COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS
From the pencil drawing by Constantin A. Pertzoff

« ARCHITECTURE »



LOWELL HOUSE, HARVARD UNIVERSITY.

COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS
From the pencil drawing by Constantin A. Pertzoff

« ARCHITECTURE »



DUNSTER HOUSE AND THE STILLMAN MEMORIAL GATES, HARVARD UNIVERSITY
COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS
From the pencil drawing by Constantin A. Pertzoff

Thursday, July 16.—The news that John Russell Pope is to design Sir Joseph Duveen's new wing for the Tate Gallery in London is apparently not entirely palatable to our English brother architects. As the Editor of *The Architects' Journal* says, "Why an American architect for this our very national institution? On the other hand, why not? Most of the money comes from America. But paid-for works produced in the past, in Europe. Stalemate!" I wonder, if Sir Edwin Lutyens had been invited to put a new wing on the Metropolitan, whether we should be so gently moved to question it.

Friday, July 17.—Lunched with Egerton Swartwout, and back to his office to see an interesting bit of evidence as to what mural painting and sculpture will do for a building. Eugene Savage's murals are now finished and in place on the walls of the Elks' National Headquarters in Chicago. Adolph Weinman has completed the sculptural band around the outside of the circular building beneath the base of the order. Photographs taken before and after these additions form an unusually pertinent argument to bring to bear on building committees that are still in doubt. These photographs will appear side by side in an early issue.

Monday, July 20.—Lunched with Lorimer Rich, David Coyle, and Robert Wiseman, discussing among other things the apparently insoluble problem presented by the small house. The average income in the United States does not warrant the purchase of the average house. Experiments of community developments indicate that the public cannot be sold that which it really can afford, but demands that which it cannot pay for, and the situation is growing worse. The six-room house, with one bath and one-car garage, is giving way before the eight-room house with two or three baths and a two-car garage, in addition to electric refrigeration, concealed radiators, tiled bathrooms, several telephones, and all the other luxuries of the day, which have apparently become necessities. Among many attempts to produce houses more quickly and for less money, Wiseman is working on a scheme doing away with the plastered permanent partition. It has interesting possibilities—the interior that is divisible at will to suit varied requirements.

Wednesday, July 22.—Some of the architectural editors met with Robert D. Kohn at lunch to-day in an informal discussion as to what is being done, and what might be done with *The Octagon*, the journal of The American Institute of Architects. Lacking at present the means to make of *The Octagon* a really militant professional journal, possibly a



The Editor's Diary

better purpose might be served, at least temporarily, by some very much slighter form of publication, more frequently issued, that would carry to the whole profession, irrespective of membership in the A. I. A., current news of significance to the profession and to the building industry. Some such scheme is, at any rate, worthy of study.

Friday, July 24.—Robert D. Kohn believes that American architecture knows where it wants to go, and is on its way, both in the field of design and in that of materials and construction methods. The more I see of it, the less certain I am that it or the architects themselves know where they are going. One very uncertain factor is our restricted knowledge of architectural appreciation. We spend a lot of time and energy on the supposition that a building should express its function, yet the whole history of civilization seems to show that the architecture that really impresses the man in the street does so from an emotional rather than an intellectual attack.

Monday, July 27.—There is an earnest and carefully studied attempt being made to co-ordinate, in some broad way, the American Institute of Architects and the various state societies of architects, draftsmen's organizations, and student groups, under the joint chairmanship of Edwin Bergstrom, acting for the A. I. A., and Robert H. Orr, of California, for the state societies. A preliminary report has been prepared, and is being submitted to all those concerned. It would be a tremendous step forward if, in some broad manner, all the architects of the United States could be welded together into one group, thereby gaining weight for concerted action and increasing respect of other citizens for a truly representative group. This unification of various organizations will perhaps not be achieved in a moment, but the need for it is so obvious that there should be no obstacles permitted to stand in the way.

Thursday, July 30.—Lunching with Eugene Savage and Egerton Swartwout, the conversation turned to equestrian statues. Savage spoke of the ex-

cellence of J. Q. A. Ward's George Washington, which is being more or less buffeted around Union Square in the various fills and excavations taking place in that neighborhood. There is also in Newark a facsimile of the Col- leoni, given to the city through the munificence of a brewer, I believe, and it should serve as a perpetual reminder to the eastern part of the United States of what an equestrian statue can be. Daniel Chester French's Sherman, preceded by an angel afoot leading the way through the Plaza at 59th Street, Fifth Avenue and Central Park, seems to have been an attempt at a fundamentally impossible problem—the combination of realism and imagery in hard bronze. Four new equestrian statues are to be placed, I believe, at the approach to the new Arlington Memorial bridge in Washington, one group of two by Leo Friedlander, and the other group by James Earl Frazer. Then, for Pope's alterations to the old Grant Tomb, Paul Manship is doing the equestrian figure to stand before it.

Saturday, August 1.—American stained glass is apparently coming into its own. Ralph Adams Cram, writing in *Stained Glass*, says that in the last twenty years the whole current of the art has changed. His feeling is that the art of stained glass actually died about the year 1600. Now it has been reborn almost miraculously. The recovery began in England under the Pugins, leaped forward under William Morris and Burne-Jones, and, by the end of the nineteenth century, a dozen firms were making the first really good glass made in three hundred years. Now the art has been wholly restored in England. Ireland is showing promise. Bavaria is coming out from under a cloud. In France little promise exists. Here with us, to quote Dr. Cram, "It can now be truly said that there are eight or ten firms or individuals that are creating stained glass that is at least on as high a level as the best in England, while some of it is better and not unworthy to be compared with the great French glass of the thirteenth and fourteenth centuries."

Leon Dabo, painter, also adds his words of appreciation in *The Little Flower Monastery Messenger*: "America to-day is producing stained glass rivaling the best work in glass made anywhere."

Monday, August 3.—I see that our fellow voyageur to Paris, George Wharton Edwards, A. N. A., has been honored in the acquisition of his painting, "The Castle of Turregano, Spain," by the French Ministry of Beaux-Arts for the State Collection.

Wednesday, August 5.—The photo-electric cell, or electric eye, is finding new uses almost every day. It is being used

now to count automobiles passing over the bridge between Detroit and Windsor. The cell is imbedded in each of the ten incoming traffic lanes at the point where the cars stop to pay toll. Each car in stopping interrupts a beam of light. The cars are counted, the count recorded, and signals indicating the density of traffic are flashed to the offices of the bridge.

Friday, August 7.—Raymond Hood, at The League to-day, waxed eloquent on the extent to which symmetry in planning has handicapped architects since the days of the Renaissance. Up to that time symmetry was no such rigid fetter upon the way people built. Egypt and Greece designed individual units symmetrically, but did not carry the fetish, if such it is, into group planning. Karnak and the Acropolis are markedly free from it; Gothic architecture never was enslaved by it. Moreover, with a growing sophistication of peoples, symmetry becomes a bit too obvious as an expression of rhythm. And as to its warfare with the rational and economic expression of efficiency there can be little doubt. Hood ridicules our constant inclination to put a fireplace on axis at the end of a room, flanking it with windows or doors that are squeezed down to an uncomfortable width, whereas if we put the fireplace frankly off to one side we should have room at the other side for one really adequate source of light or communication. Saarinen is one of our contemporaries who has refused to be bound by the rules of symmetrical design, which is perhaps one large factor in the charm and æsthetic appeal of his work at Cranbrook.

Saturday, August 8.—Canada's unemployment problem in the architectural profession seems as distressing as some of our own. There are 510 architectural firms, members of the component societies of the Royal Architectural Institute of Canada. In June, 1929, these 510 firms employed 1,180 assistants and draftsmen. A year later, in June, 1930, the number had decreased to 1,040, and in June, 1931, the number had fallen to 710, indicating that 470 architectural assistants and draftsmen are either unemployed or employed outside their vocation. Incidentally, the average monthly salary paid these assistants is about \$110.

Monday, August 10.—With Leonard Schultze, of Schultze & Weaver, to see the new Waldorf-Astoria over on Park Avenue at Fiftieth Street. Starting at the top, we worked down, spending what was to me a most instructive afternoon. The hotel is scheduled to open on October 1, and already some of the upper apartments are completely furnished. Here is a three-purpose build-

ing—an apartment hotel home for permanent use of individuals and clubs, a hotel for transients, and a centre for entertainment through balls and banquets. In the apartments and transient suites the architectural detail and the furnishings are in restrained English and French traditional styles. In the public portions of the building the architects have followed a carefully restrained contemporary manner, such as applies in the design of the exterior.

For many years the Waldorf Ballroom has been a widely known centre of entertainment; the new Waldorf Ballroom should prove to be a worthy successor. There is one feature that its site (a whole city block) and its architects have given the new hotel which should contribute largely to its success, and that is an unusually generous provision for public circulation throughout the whole main floor. Its great lobbies, arcades of display cabinets, its several restaurants, brokers' offices and a bank—all these make for public use and an acceptance of the hotel as a public property rather than as a business establishment.

Thursday, August 13.—Out in Detroit the architects and contractors, through the efforts of a joint committee, believe they have solved the difficult problem of temporary heat—who provides it, and how. The suggestion is that specifications provide two separate headings: First, the heating required for the protection of the structure from foundations to full enclosure—this to be called "weather protection"; Second, all heating required from the time of complete enclosure until the building is turned over to the owner—this to be called "temporary heat" and considered part of the general contractor's job. Of course, the specifications should do a lot more: provide definite information as to temporary boiler, covering, connections; use of permanent boiler, of permanent radiators, and their connection and reconnection; minor piping changes; when the permanent boiler and radiators will be available—and so on.



Friday, August 14.—Lunched with Leonard Schultze, talking of the curious development that has apparently crept into our design of high office buildings. Few of these have any semblance of an obvious plan on the entrance floor. We crawl into a low hole which meanders around among cigar-stands until we come up against a bank of elevators. Very few of these office buildings impress one with the dignity and logical development of a plan. Incidentally, one of New York's new buildings at which many criticisms have been hurled, the New York Central Building,

has unmistakably the sense of adequate, logical plan when one enters it—a broad, straight, generous corridor running through the middle from one end to the other, with elevator banks leading off it at both sides.

Thursday, August 20.—Lunched with Alfred Hopkins in the new home of the Union League Club which Benjamin Morris recently designed. Hopkins has been devoting much study to the interesting possibilities of the concrete block. A number of farm groups and the Berks County Jail at Reading, Pa., are notable examples of how he has used the concrete block in connection with cast stone. One of the vital principles, of course, is to vary the width of courses, using these four and six inches in height as well as eight inches, frequently also in an ashlar pattern. Hopkins gets hold of a block maker near the site and has his blocks made under supervision. One of his tricks is to play a little spray from a hose upon the blocks as they come out of the forms while still soft. This results in an eroded surface having somewhat the texture of very old stone. One difficulty, of course, is color. Light colors, preferably yellow, in the aggregates, with yellow sand, are much to be preferred to the gray or darker ones.

Friday, August 21.—James Monroe Hewlett is all stirred up about some new glass in St. Thomas's. His letter appears in the Bulletin Board pages. I went in to see this new glass, which is over Goodhue's superb reredos, but the church was entirely dark and it was difficult to tell just what the effect of the new glass might be. Telephoning to Hardie Phillip, asking him what they were trying to do, brought the information that thus far every comment that has come to him has been favorable. He and I are going up to see it one of these days, lighting the church so that its effect can be properly appraised.

Monday, August 24.—Raymond Hood is out in the Sunday Times with a new story about Metropolitan Square, or, as it is becoming to be more popularly called, Radio City. Hood makes out a very good case for the final scheme as it is now to be built. Since we no longer see our city buildings from a distance, the façade has a lessening significance. What we do see now is the view from the windows of our towers—the tops of other towers and the tar-and-gravel roofs of all that is below us. The architects of Mr. Rockefeller's great architectural effort, Reinhard & Hofmeister; Corbett, Harrison & MacMurray; and Hood & Foulhoux, have revised their scheme as originally published chiefly in the landscaping of all top surfaces that one looks down upon. It is well called an adaptation of the hanging gardens of Babylon.

FAVORITE FEATURES



II. ROBERT R. McGOODWIN



In almost every piece of work that an architect designs there is, when it is finished, something that he would prefer to have otherwise. Once in a long while, however, he rings the bell so truly that even his sophisticated eye finds it good. The architect tells himself that it worked out as he had hoped, and he would not change it if that were possible. Here is another of these "favorite features"—the architect's own choice from among many achievements.



Photograph by William M. Kiltase.

CONTACTS



DEVOTED TO A BETTER UNDERSTANDING OF THE BUSINESS SIDE
OF ARCHITECTURE AND ITS RELATION TO THE INDUSTRIES



THE evolution of the building process from the early days when every man was his own builder to the elaborate organization of to-day has occurred as a consequence of basic and fundamental alterations in our mode of living.

Two factors have, in the main, been responsible for this change. The first—an ever-higher standard of living—has imposed upon the builder a greatly diversified selection of building media and attendant technic. The second—the necessity of early income upon investment—has made speed the essence of practically every building contract.

The degree of technic attained in the various crafts precludes the centralization of execution possible under less exacting circumstances. The mason knows little of metalurgy. The pipe trades have no interest in the problems of the mill and quarry, and so on throughout the entire roster of the building crafts. Yet harmony and co-operation must prevail throughout their participation in the building venture.

These governing conditions have forced the enlistment of groups of specialists under the guidance of the general contractor for the execution of the contract. The master builder becomes the master mind charged with the responsibility of manufacture, delivery, and assembly.

The construction effort may be conveniently visualized as an inverted pyramid, the apex representing the general contractors. Successive horizontal planes may be regarded as sub-contractors, jobbing establishments, warehouses, manufacturing plants and mines, quarries, fields and forests in turn. Political boundaries do not exist in such a structure. Modern transportation and credit arrangements have established a new community of interest among the workers of the world.

The need of an adequate co-ordinating agency under such conditions is only too apparent. Under the contract the architect looks only to the builder. The sub-contractors—as independent entities—are ignored. The builder thus becomes the clear-

How Big Building is Co-ordinated

By R. P. Wallis

ing house for the mass of detail incident to the building venture.

Building co-ordination as above referred to may be considered as: (1) Handling of drawings; (2) Supervising the manufacture and delivery of prefabricated items, and (3) General liaisons between field office, main office, architects, and sub-contractors. These activities are more or less correlated and come under the heading of Expediting Functions.

Field progress is entirely dependent upon delivery of prefabricated material. It, therefore, becomes necessary at the start of the job to carefully plan the work of the sub-trades.

The preparation of such a schedule necessitates a careful analysis of the building operation as a whole as well as in detail. Completion dates are usually set up in the contract, while instructions as to the conditions under which the work will be carried on will be found in the specifications.

The initial step in this direction is the preparation of a progress schedule showing graphically the anticipated duration of each craft in the field.

The structural framework, involving structural steel, floor pans or tile, reinforcing steel, stairs, and other work which must be installed at this time is followed in turn by the exterior masonry. Here we find windows and exterior doors as well as cut stone, terra-cotta, special brick, and any items requiring incorporation in the walls. Following

the masonry we must consider interior partitions. Here we deal with doors, borrowed lights, rough framework for bronze and ornamental iron, marble and so on. The finishing trades, as the name implies, cover the various operations associated with the ornamentation and finished treatment applied to inner portions of the structure. The influence of the mechanical trades is felt throughout the life of the operation and they in turn must be broken down to articulate with the successive stages above enumerated.

This schedule is issued monthly, recording not only actual progress as compared to anticipated dates, but also the percentage completed by each of the several trades.

The intelligent preparation of such a schedule involves a breakdown of each trade into its various elements. Delivery dates compatible with job progress must be established in each instance. Certain items must be incorporated as contiguous work is installed, others may profitably be set at a later date.

The first step in the procurement of materials is the preparation of shop drawings. Immediately upon the award of a sub-contract, contact is made with the drafting-room of the successful bidder and a schedule of submission worked out. This schedule should take cognizance not only of the relative intricacy of the various items involved, but also of the sequence of delivery set up in the progress schedule. Priority should of course be given those items identified with the structural framework as that is the first to take shape in the field. At the same time, however, the builder should be negotiating for the submission of drawings covering the second group of items and giving serious thought to those associated with subsequent operations.

In any event a determined effort should be made by the builder to secure early submission and approval of all shop drawings. The various phases of manufacture each consume a definite amount of time and the only factor of safety lies in getting approvals behind one.

The architect checks only for design and general arrangement. Co-ordination, dimensions, and quantity are left to the contractors. To make certain that work will fit in place when delivered, a general interchange of shop drawings is effected among all sub-contractors interested in any one phase of the contract.

In almost any area containing the work of a number of trades, that of some one craft will be of such a nature as to serve as a basis for the other trades. For example, toilet rooms and corridors are usually built from the approved marble shop drawings. The architect's drawings have served their purpose in showing in a general way the work to be undertaken. In this way it becomes unnecessary for the marble contractor to await completion of tile walls before sending his layouts to the shop. Much valuable time is saved thereby.

These shop drawings serve a dual purpose: (1) To acquaint the architect with the sub-contractor's interpretation of the contract drawings, and (2) as instructions to the shop for fabrication purposes.

Architectural approval thus is a necessary prerequisite before these drawings may be issued to the shop. In an undertaking of any magnitude it becomes necessary for the contractor to undertake the transmission of hundreds of shop drawings of varying degrees of complexity and dimension.

The architect, upon receipt of these drawings, either approves them or returns them for correction. Those approved are immediately released to the shop. Those returned for correction must be resubmitted for final approval.

The filing and recording of these drawings is a matter of vital interest. Letter files have been found most convenient for this purpose. These files are subdivided into three sections. The first, entitled "Drawings Submitted for Approval," contains copies of those drawings in the architect's hands for checking. The second, "Drawings Returned for Correction," is intended for those layouts that must be resubmitted for approval. And the third, "Drawings Approved," constitutes the final resting place of prints as they are released to the shop.

Drawings filed in the approved section remain with the white side out until final distribution has been

effected, when they are refolded with the blue side out.

Weekly schedules enumerating those drawings filed in the first section are prepared and forwarded to the architect as a reminder. The order in which these drawings should be released should be noted thereon.

Similar lists covering drawings returned for correction are distributed among the various sub-contractors listed in the second section of the files, so that there may be no excuse for delay in obtaining final release.

The bookkeeping incident to the handling of these drawings must be made as simple as possible.

A daily log is kept, recording the receipt and disbursement of all drawings of whatever nature. Additional records are kept either on individual cards or specially devised forms covering the seemingly endless peregrination of these drawings between preliminary submission and final distribution.

Once approved and co-ordinated by whatever other trades may be concerned, the scene of activity changes from the drafting-room to the shop.

There can be no standardization of manufacturing process. The field is so broad as to preclude more than a general knowledge on the part of the contractors. All that the contractor can hope to do at this stage is to keep in general touch with progress in the shop.

To a manufacturer an order is an order, one of a number of such. To the contractor that particular order becomes the only point of contact with that shop. The competition among a number of contractors for the service of a shop sometimes becomes acute. There is an old saying, "The wheel that squeaks the loudest is the wheel that gets the grease!" This applies to the construction industry as well as to the days of horse and buggy.

However, judgment and discretion must be used in bringing pressure to bear upon the manufacturers. Most shop schedules are set up months in advance. Various orders are allocated in proper sequence, and

derangement, owing to stop-order or lack of information, may set an order back to the utter disruption of the building schedule.

It is the responsibility of the contractor to place full and complete information in the hands of the shop. Otherwise his frantic and sometimes belated demands for immediate delivery lose much of their appeal.

Specific knowledge of contract requirements is essential in all dealings with a manufacturer. It is only through an intimate knowledge of job requirements that the work of these widely scattered plants may be made to articulate as they should.

Contact with the shop may be effected in a number of ways. Bi-monthly schedules made out by the contractor in blank and sent to the manufacturer to be filled in, giving the information desired, is perhaps the simplest method. Where possible, occasional visits should be made.

Troubles should be anticipated and dealt with promptly and intelligently. It avails little to close the barn door after the horse has been abducted. Delay and misunderstanding are the cutworms of profits.

Once manufacture is complete it remains but to transport the finished item from the shop to the job site. This is the responsibility of the carrier.

Should storage facilities at the site prove adequate, materials may be received as rapidly as the shop is able to produce. Otherwise dates and sequence become matters of utmost importance.

Where items are urgently required, promised shipping dates should be confirmed by wire and information obtained as to car number, routing, and so on. This data placed in the hands of the local car-tracer enables the carrier to keep in close touch with the shipment and insure its prompt delivery.

Ordinarily the routing is left to the shipper unless fixed by contract requirements.

Upon delivery the expeditor can turn his attention to the manufacture of other portions of the contract and so on until the end of the job.

In dealing with a group of sub-contractors their integrity and ability should be assumed until proven otherwise. A spirit of helpful co-operation is most essential to the rapid and expeditious conduct of a building project.





ARCHITECTURE'S PORTFOLIO OF WINDOW GRILLES

THE SIXTIETH IN A SERIES OF COLLECTIONS OF
PHOTOGRAPHS ILLUSTRATING VARIOUS MINOR
ARCHITECTURAL DETAILS

Forthcoming Portfolios will be devoted to the following subjects: China Cupboards (November), Parapets (December), Concealed Radiators (January), Interior Clocks (February), Outside Stairways (March), and Leaded Glass Medallions (April). Photographs showing interesting examples under any of these headings will be welcomed by the Editor, though it should be noted that these respective issues are made up a month in advance of publication dates.

❖ ❖ ❖ *Subjects of Previous Portfolios* ❖ ❖ ❖

1926-27

DORMER WINDOWS
SHUTTERS AND BLINDS
ENGLISH PANELLING
GEORGIAN STAIRWAYS
STONE MASONRY TEXTURES
ENGLISH CHIMNEYS
FANLIGHTS AND OVERDOORS
TEXTURES OF BRICKWORK
IRON RAILINGS
DOOR HARDWARE
PALLADIAN MOTIVES
GABLE ENDS
COLONIAL TOP-RAILINGS
CIRCULAR AND OVAL WINDOWS

1928

BUILT-IN BOOKCASES
CHIMNEY TOPS
DOOR HOODS
BAY WINDOWS
CUPOLAS
GARDEN GATES
STAIR ENDS
BALCONIES
GARDEN WALLS
ARCADES
PLASTER CEILINGS
CORNICES OF WOOD

1929

DOORWAY LIGHTING
ENGLISH FIREPLACES
GATE-POST TOPS
GARDEN STEPS
RAIN LEADER HEADS
GARDEN POOLS
QUOINS
INTERIOR PAVING
BELT COURSES
KEYSTONES
AIDS TO FENESTRATION
BALUSTRADES

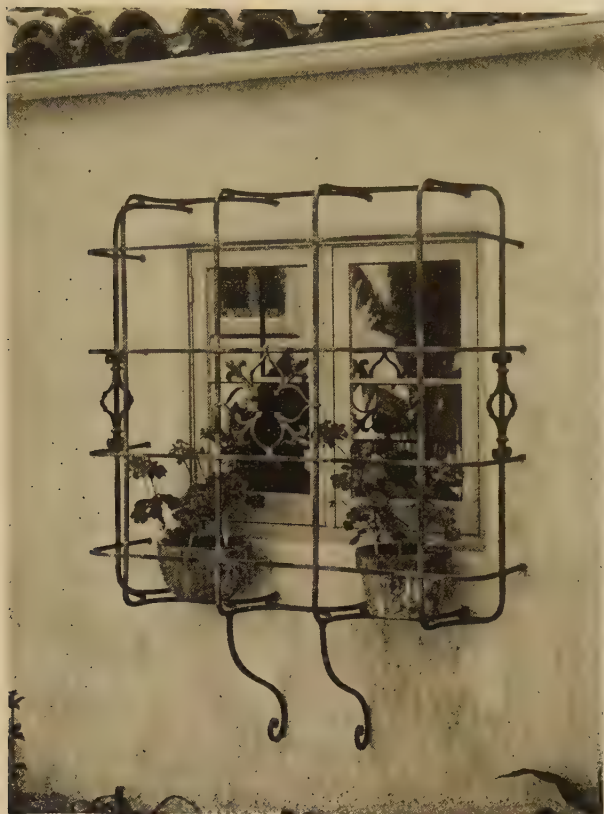
1930

SPANDRELS
CHANCEL FURNITURE
BUSINESS BUILDING ENTRANCES
GARDEN SHELTERS
ELEVATOR DOORS
ENTRANCE PORCHES
PATIOS
TREILLAGE
FLAGPOLE HOLDERS
CASEMENT WINDOWS
FENCES OF WOOD
GOTHIC DOORWAYS

1931

BANKING-ROOM CHECK DESKS
SECOND-STORY PORCHES
TOWER CLOCKS
ALTARS
GARAGE DOORS
MAIL-CHUTE BOVES
WEATHER-VANES
BANK ENTRANCES
URNES

*Roland E. Coate**Carleton Monroe Winslow**Dodd & Richards**Walker & Eisen*



R. R. Struthers



Charles R. Fargo

George Washington Smith

Lester Beach Scheide



*In Ronda, Spain**Roland E. Coate**Roland E. Coate**Roland E. Coate*



Jones & Ward



Wallace & Warner

Palmer H. Sabin

Jones & Ward





*Morgan, Walls &
Clements*

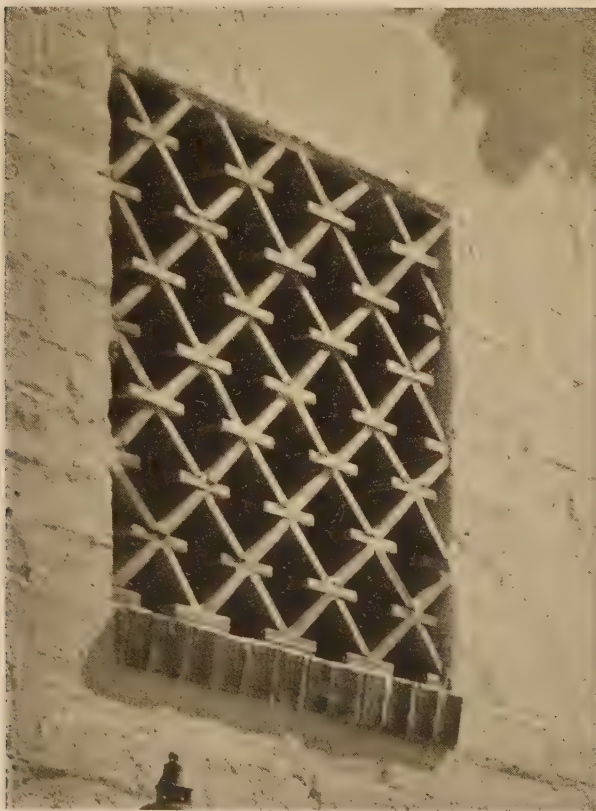


*Kiehnel &
Elliott*

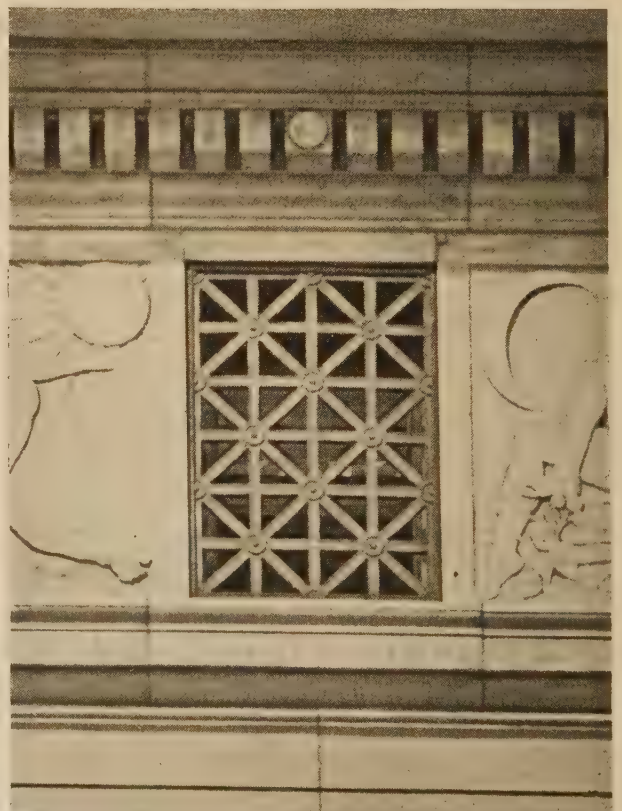


Edgar V. Ulrich

Jonathan Ring



Cass Gilbert





*Theodore M.
Fisher*

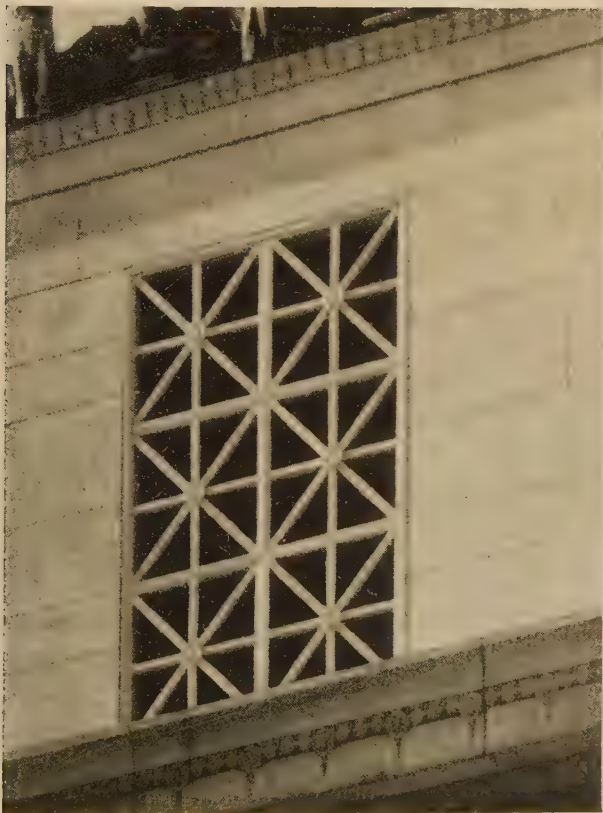
*John and
Donald Parkinson*

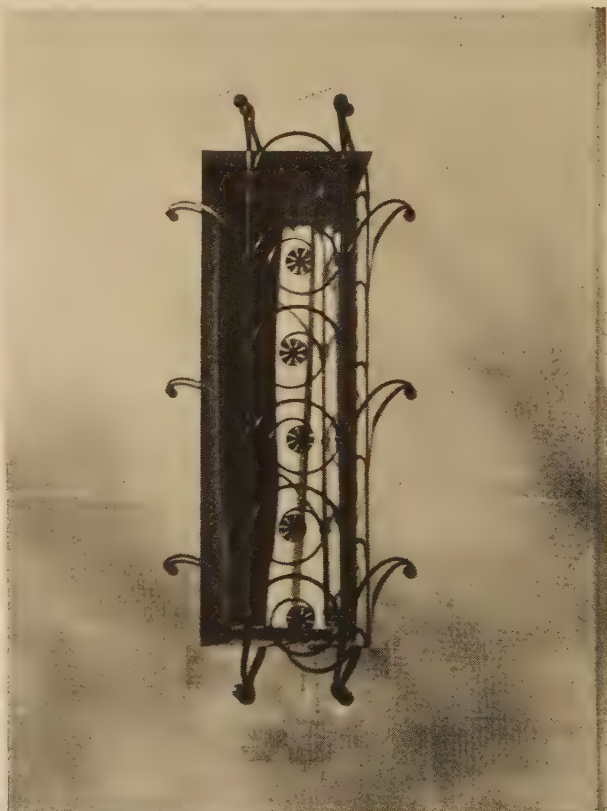


Benjamin O. Berry

Bertram G. Goodhue

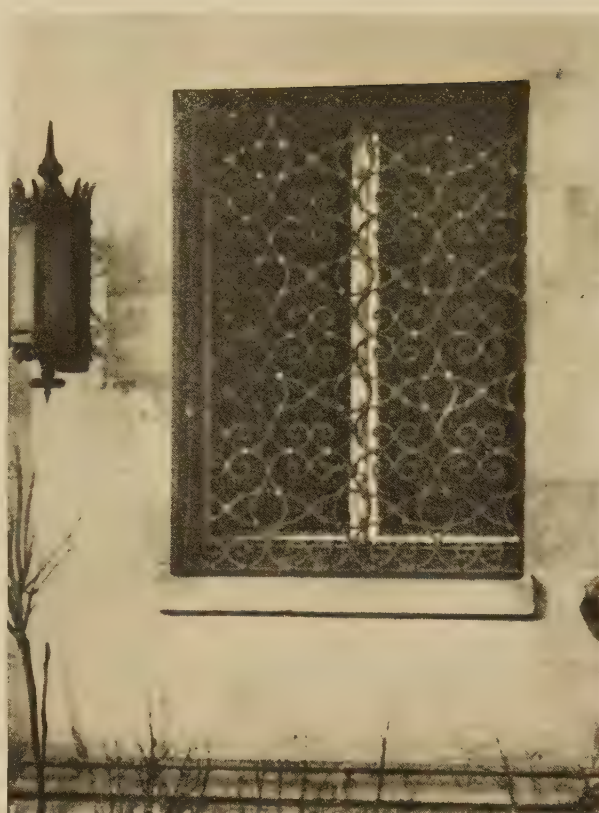
Bertram G. Goodhue



*Cass Gilbert**Château of Courance, France**A New York City apartment-house**White & Weber*



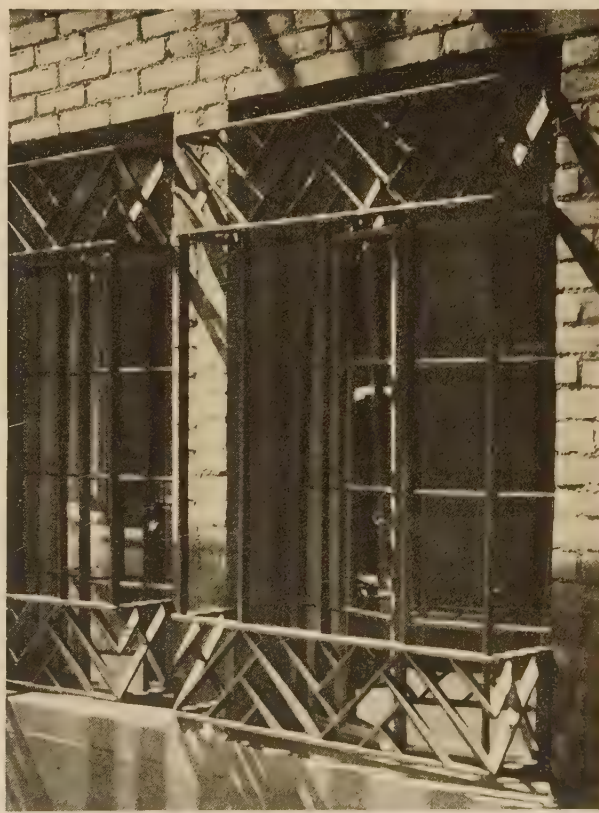
Charles A. Platt



Robert S. de Golyer & Co.

Greville Rickard

Bowdoin & Russell

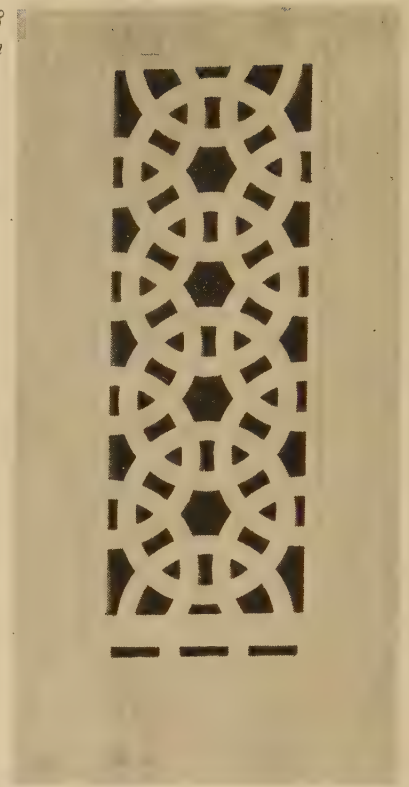




*Murphy &
Olmsted*

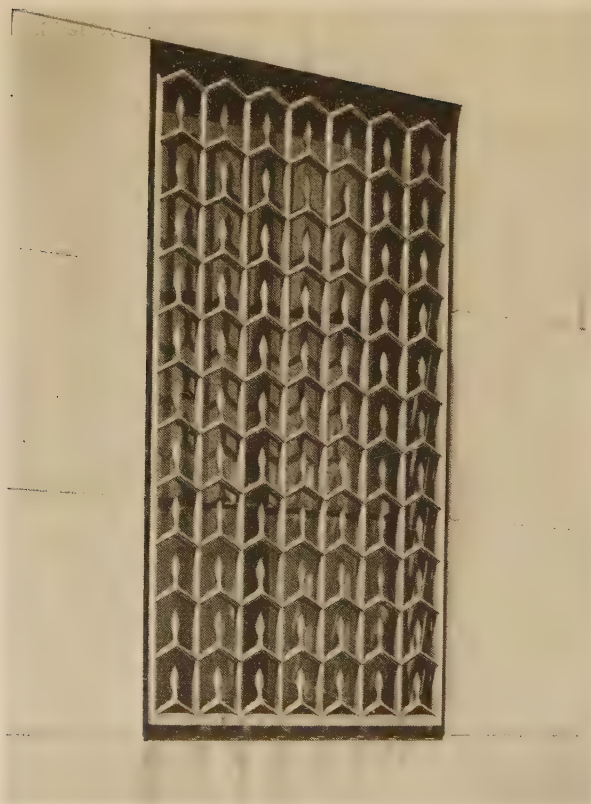


*Sloan &
Robertson*



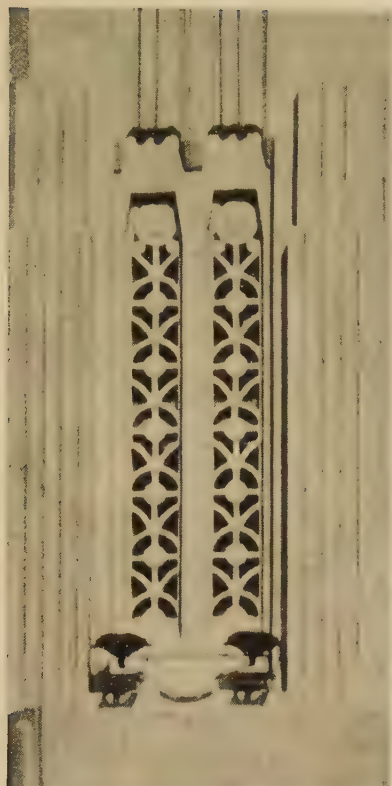
John and Donald Parkinson

Lawrence H. Fowler



McKim, Mead & White





*Moise H.
Goldstein*

*Bakewell & Brown,
Sylvain Schnaittacher*



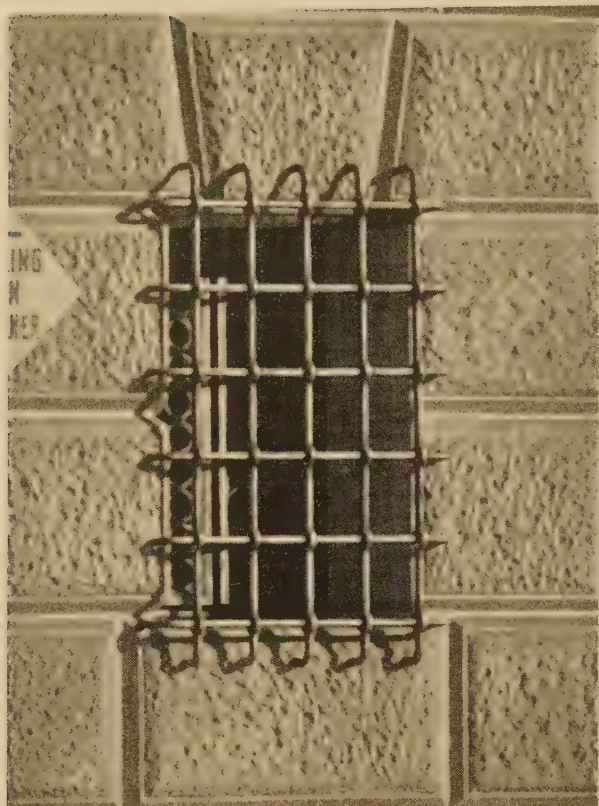
Bertram G. Goodhue Associates



Croft & Boerner

Ernest Flagg



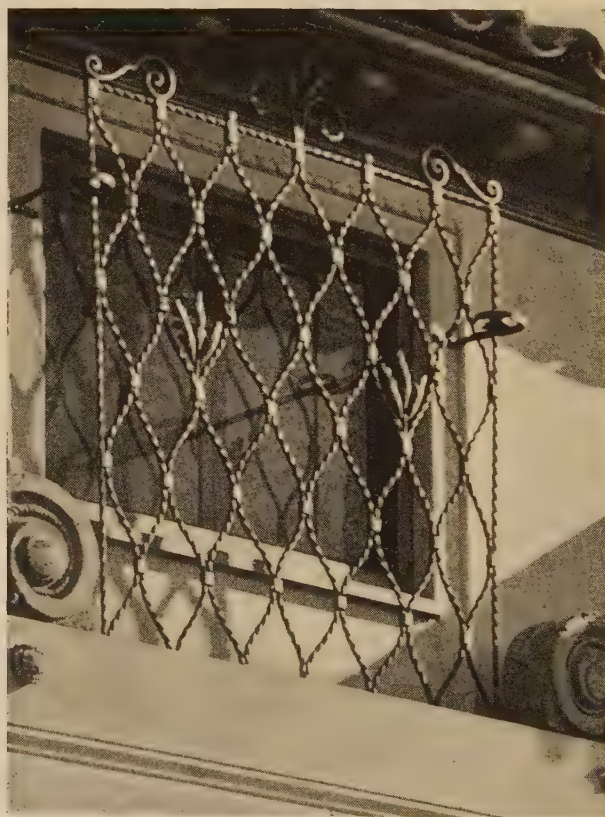


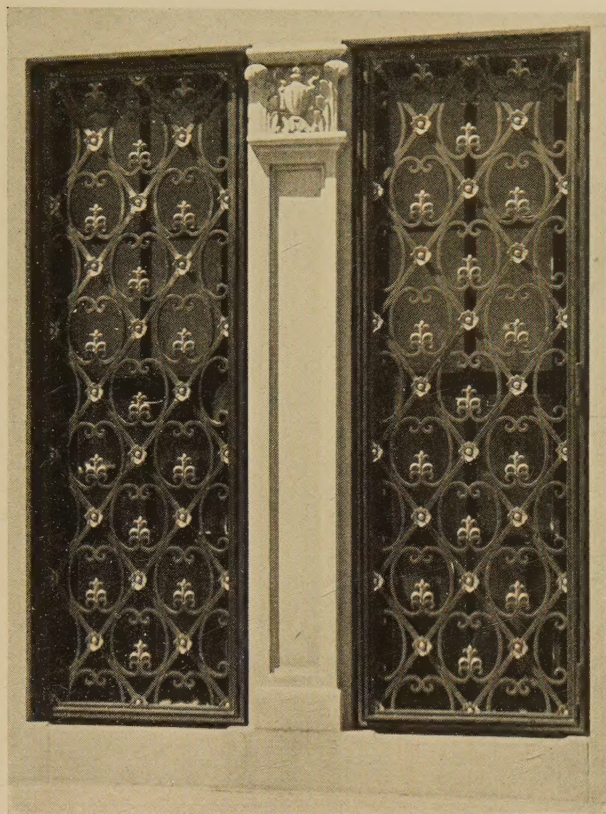
Morgan, Wall & Clements



Cass Gilbert

A house in Santa Monica, Calif.





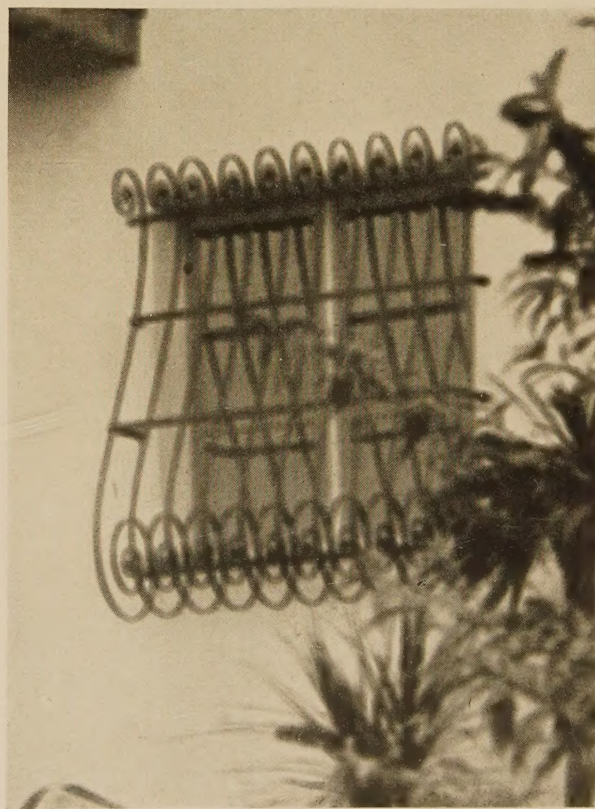
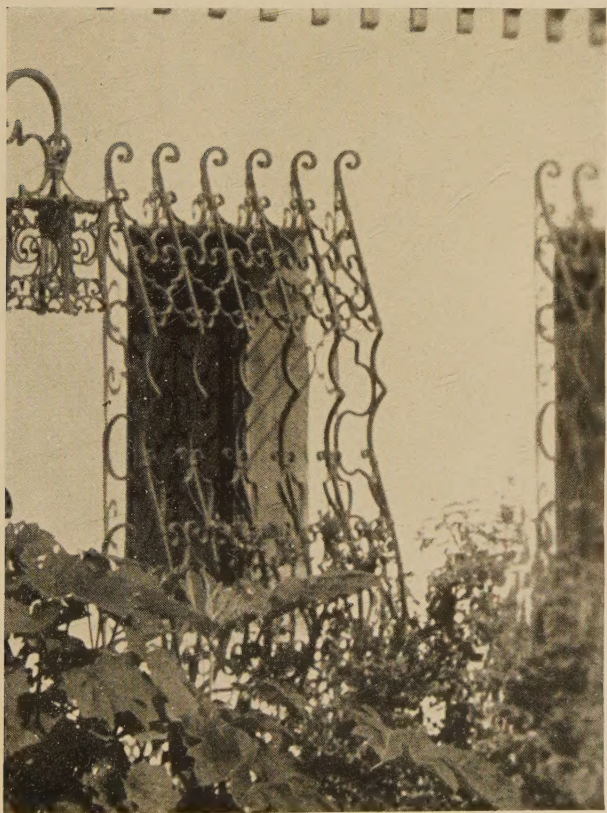
Rosario Candela

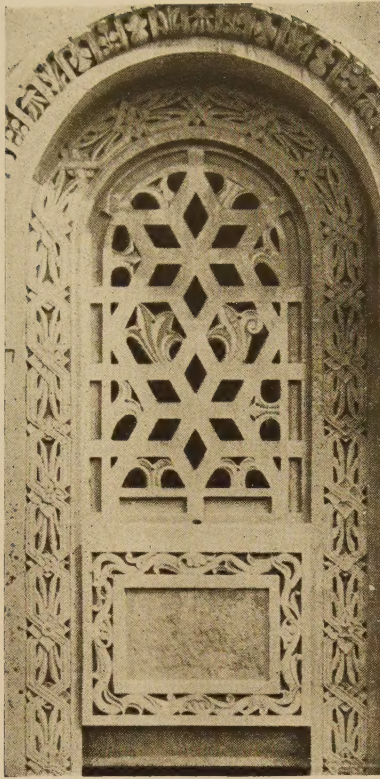


York & Sawyer

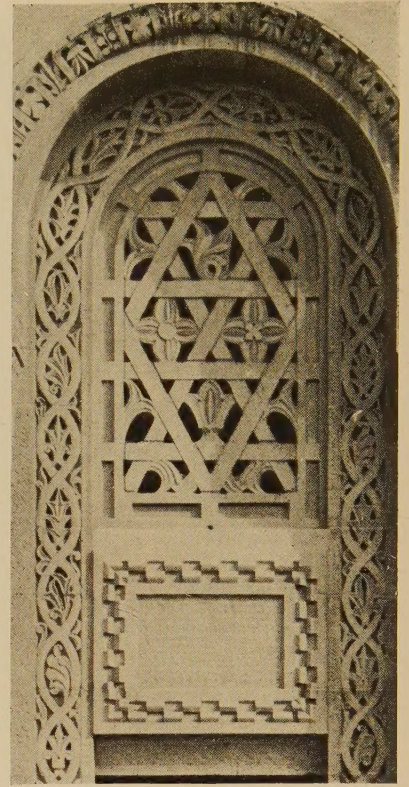
Carl Fules Weyle

In St. Francis Wood, San Francisco

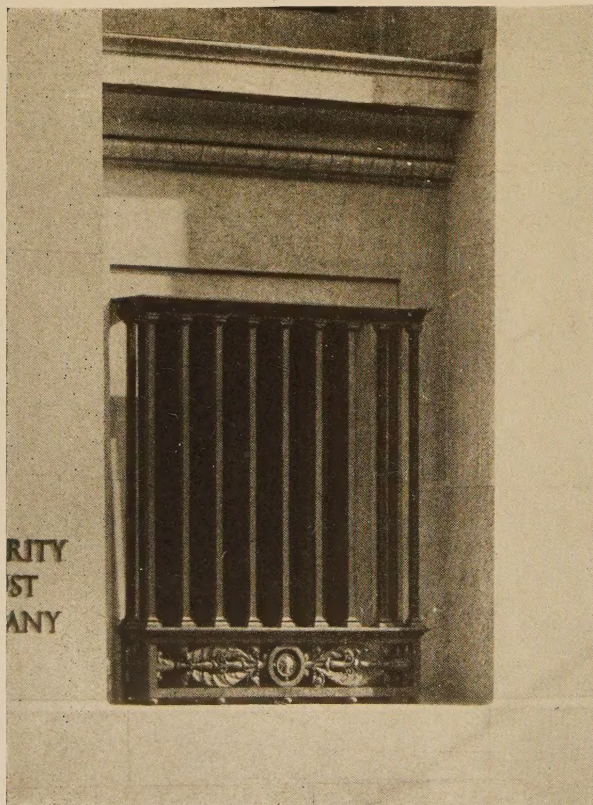




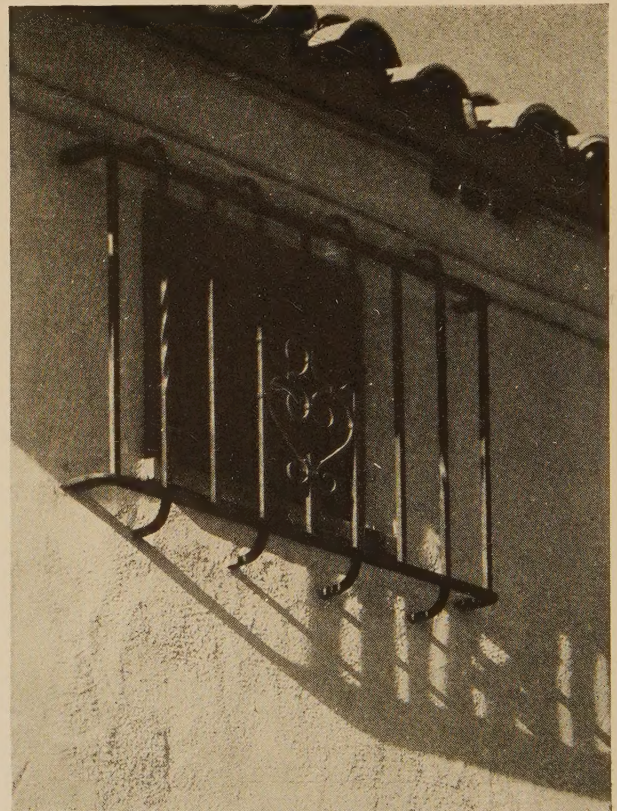
*Robert D. Kohn, Charles Butler,
Clarence S. Stein, associated;
Mayers, Murray & Phillip,
consulting*



Paul P. Cret



Lilian J. Rice





*Robert D. Kohn, Charles Butler,
Clarence S. Stein, associated;
Mayers, Murray & Phillip,
consulting*

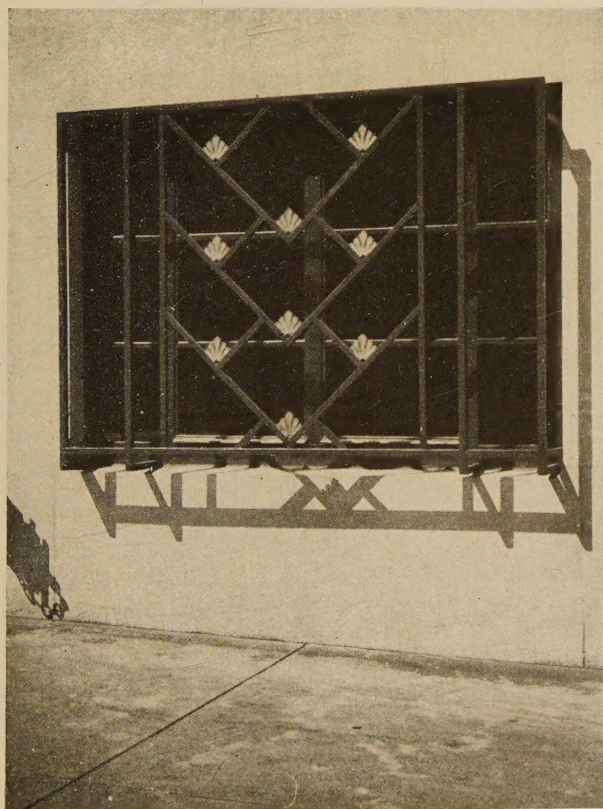


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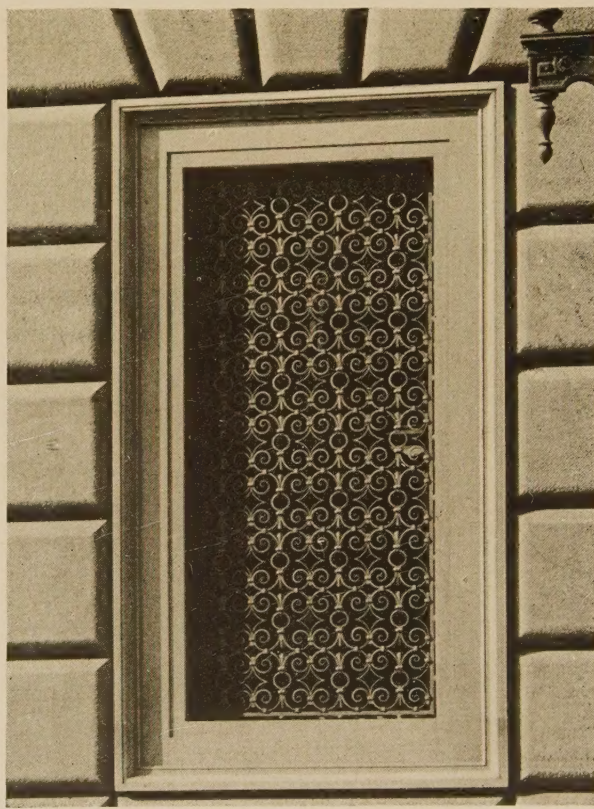
Douglass Orr

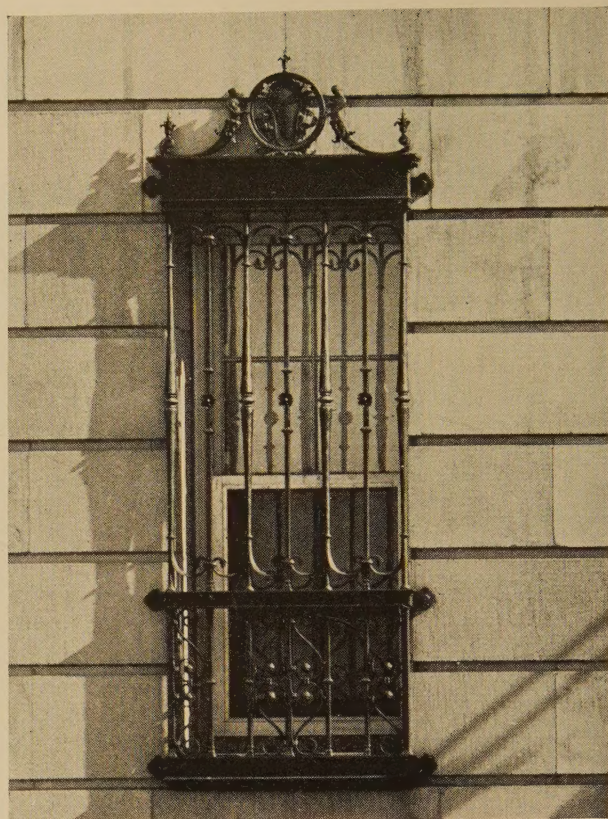


Raymond Hood, Kenneth M. Murchison



McKim, Mead & White



*Frederick J. Sterner**J. H. Freedlander**Roger H. Bullard**William Mooser*